Who's making money abroad

(Page 114)

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BUSINESS WEEK

A McGRAW-HILL PUBLICATION · FIFTY CENTS · OCT. 22, 1960

Once, committees ran U.S. Rubber. H.E. Humphreys, Jr., (left) stopped that. For G. R. Vila it meant new responsibilities and—this week—the presidency. (Management)

The day they threw orchids away!

So great was the need for rubber in 1876 that when 70,000 wild rubber tree seeds arrived from Brazil, the Royal hothouses of London were quickly emptied—orchids and all—to make room for raising the young plants that led to the first rubber plantation.

Now, the chemical laboratory is the "hothouse" for a new kind of rubber. In performance and chemical structure, new Shell Isoprene Rubber is so nearly identical to natural rubber that manufacturers can assign it to jobs once restricted to tree-born rubber. Shell Chemical's new product is even used in heavy-duty truck tires—most punishing assignment of all—where no previous man-made rubber made the grade!

Adding polyisoprene to the nation's rubber supply is another important way Shell Chemical stretches our vital resources.

Shell Chemical Company

Chemical Partner of Industry and Agriculture

TORRANCE, CALIFORNIA

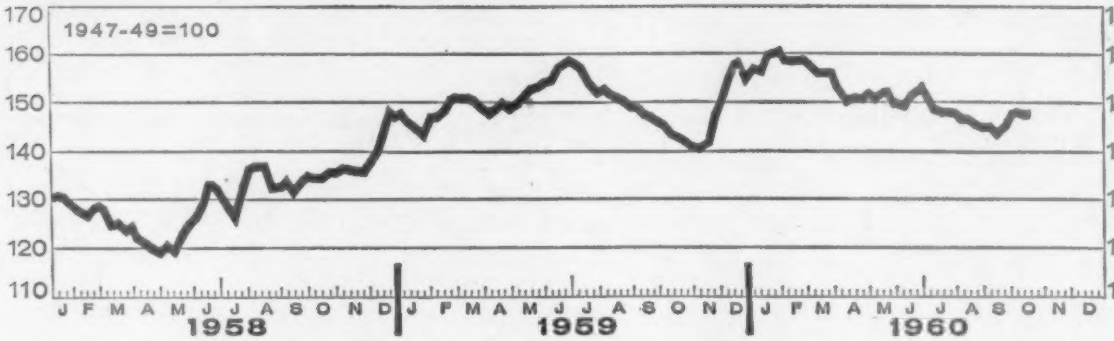
SHELL

In BUSINESS this WEEK October 22, 1960

BUSINESS WEEK is published weekly by McGraw-Hill Publishing Co., Inc., 330 W. 42nd St., N. Y. 36, N. Y. Second Class Postage Paid at N. Y. 1, N. Y., and at Albany, N. Y. Subscription $6 a year in U. S. A. Canadian and foreign rates on request.

NUMBER 1625

FIGURES of the WEEK



	1953-55 Average	Year Ago	Month Ago	Week Ago	§ Latest Week
BUSINESS WEEK INDEX (chart)	**133.3**	**143.2**	**145.8**	**148.3r**	**148.5***
PRODUCTION					
Steel ingot (thous. of tons)	2,032	371	1,547	1,579r	**1,556**
Automobiles	125,553	133,430	85,879	140,832r	**149,150**
Engineering const. awards (Eng. News-Rec. 4-wk. daily av. in thous.)	$52,412	$48,966	$79,260	$76,047	**$77,374**
Electric power (millions of kilowatt-hours)	10,819	12,861	13,903	13,725	**13,736**
Crude oil and condensate (daily av., thous. of bbls.)	6,536	6,839	6,847	6,809	**6,824**
Bituminous coal (daily av., thous. of tons)	1,455	1,295	1,320	1,376r	**1,353**
Paperboard (tons)	247,488	332,662	320,971	314,365	**326,613**
TRADE					
Carloadings: miscellaneous and l.c.l (daily av., thous. of cars)	70	57	53	60	**61**
Carloadings: all others (daily av., thous. of cars)	47	36	43	45	**47**
Department store sales index (1947-49 = 100, not seasonally adjusted)	121	152	130	149	**155**
Business failures (Dun & Bradstreet, number)	198	252	305	343	**326**
PRICES					
Industrial raw materials, daily index (BLS, 1947-49 = 100)	89.2	93.9	90.3	89.5	**89.4**
Foodstuffs, daily index (BLS, 1947-49 = 100)	90.5	74.8	74.8	75.9	**75.8**
Print cloth (spot and nearby, yd.)	19.8¢	20.0¢	19.0¢	18.6¢	**18.4¢**
Finished steel, index (BLS, 1947-49 = 100)	143.9	186.8	186.2	186.2	**186.2**
Scrap steel composite (Iron Age, ton)	$36.10	$45.17	$31.83	$29.83	**$29.50**
Copper (electrolytic, delivered price, E&MJ, lb.)	32.394¢	32.870¢	33.000¢	32.900¢	**30.000¢**
Aluminum, primary pig (U. S. del., E&MJ, lb.)	20.6¢	24.7¢	26.0¢	26.0¢	**26.0¢**
Aluminum, secondary alloy #380, 1% zinc (U. S. del., E&MJ lb.)	††	23.76¢	24.00¢	23.16¢	**23.01¢**
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	$2.34	$2.05	$1.98	$1.99	**$1.99**
Cotton, daily price (middling, 1 in., 14 designated markets, lb.)	34.57¢	31.68¢	30.53¢	30.27¢	**30.20¢**
Wool tops (Boston, lb.)	$1.96	$1.83	$1.65	$1.65	**$1.65**
FINANCE					
500 stocks composite, price index (S&P's, 1941-43 = 100)	31.64	56.88	54.58	54.03	**54.53**
Medium grade corporate bond yield (Baa issue, Moody's)	3.59%	5.29%	5.02%	5.10%	**5.12%**
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate)	2-2⅛%	4¾%	3⅜%	3⅜%	**3⅜%**
BANKING (Millions of Dollars)					
Demand deposits adjusted, reporting member banks	††	60,827	60,017	58,130r	**58,515**
Total loans and investments, reporting member banks	††	102,790	105,533	105,944r	**105,571**
Commercial, industrial and agricultural loans, reporting member banks	††	30,645	32,339	32,457	**32,590**
U. S. Gov't guaranteed obligations held, reporting member banks	††	27,443	27,491	27,694	**27,473**
Total federal reserve credit outstanding	26,424	28,667	28,048	28,385	**28,568**

MONTHLY FIGURES OF THE WEEK

		1953-55 Average	Year Ago	Month Ago	Latest Month
Housing starts (in thousands)	**September**	101.5	139.9	129.9	**103.4**
Personal income (seasonally adjusted, in billions)	**September**	$296.1	$384.3	$408.2	**$408.4**
Farm income (seasonally adjusted, in billions)	**September**	$16.0	$14.2	$16.4	**$16.4**
Bank debits (in billions)	**September**	$158.1	$215.8	$241.8	**$240.8**
Wholesale prices (U. S. Dept. of Labor BLS, 1947-49 = 100)	**September**	$110.4	$119.7	$119.2	**$119.2**
Domestic air cargo (express and freight, millions of ton miles, A.T.A.)	**August**	22.5	38.0	35.9	**40.0**

** Preliminary, week ended October 15, 1960.*
†† Not available.
r Revised.
§ Date for 'Latest Week' on each series on request.

THE PICTURES—Cover—Herb Kratovil; 5—(top) General Motors Corp., (bottom) Gene Pyle; 27—(top) Tibor Hirsch, (middle) Herb Kratovil, (bottom) Tibor Hirsch; 30-31—Herb Kratovil; 36—The Chase Manhattan Bank; 51—Chicago Dept. of City Planning; 54—(top) General Motors Corp., (bottom left) American Motors Corp., (bottom right) Studebaker-Packard Corp.; 55—(top) Ford Motor Co., (bottom) Chrysler Corp.; 66—(top) New York Central Labor Council, (middle and bottom) Tibor Hirsch; 71—New York Central Labor Council; 91—(top, left to right) Unations, Herb Kratovil, WW, (bottom, left to right) Unations, WW, Unations, Unations; 100—Herb Kratovil; 104, 106—US Rubber; 144—(left) Carl Byoir & Assoc., (right) George Woodruff; 145—George Woodruff; 167—Univ. of California; 168—U. S. I. Robodyne; 172—(top) UPI, (bottom) Herb Kratovil.

CREATIVE ANSWERS TO GLOBAL NEEDS ASSURED BY TI'S

reciprocal thinking agreements under 8 flags!

Just as this English scientist helped his Texas "cousins" increase their manufacturing capacity 4,832 miles away, "local" customer requirements throughout the world are being answered by Texas Instruments worldwide pool of thinking from a wide variety of nations and experience.

For example, when the Semiconductor-Components division in Dallas sought a process which would produce germanium crystals for transistors better, faster and at less cost, it called on Dr. John Powell (above) of Texas Instruments Limited in Bedford, England, who already had conceived an approach to the answer. His unique horizontal crystal puller — designed in England; developed and built in Dallas — cost one-fifth as much as existing machines and solved the problem, *increasing* the yield and *decreasing* the cost of this widely used semiconductor.

The fresh look applied by each Texas Instruments division and subsidiary benefits the company — and in turn its customers — from two directions. First, individual freedom allows each operation to concentrate on specific customer requirements and the technologies to satisfy them. Second, all of these various entities have available the benefits of *reciprocal thinking* in research and engineering, manufacturing and marketing.

Maintenance of nearly autonomous operations in each of TI's facilities, and the ideal interrelation of its technologies — semiconductors and components, military and civilian electronic systems, geophysical data gathering and processing, precision instrumentation, materials and metallurgy—result in major price and performance advantages to customers of all TI divisions everywhere.

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INCORPORATED

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OFFICES IN 80 PRINCIPAL CITIES OF THE WORLD


HISTORY
WORLD INC.

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READERS REPORT

Corvair

Chevrolet

Picture Switch

Dear Sir:

Please refer to pages 70 and 71 (of article) titled Corvair Wins The Race for Chevy [BW—Oct.8'60,p 70]. The first three pictures from left to right refer to the Corvair and show pictures of the Chevrolet. . . .

CYRIL CARR
HICKSVILLE, L. I., N. Y.

Dear Sir:

At least BW does have some saving graces . . . you didn't put a picture of a Ford on page 70.

RANULPH NORMAN
HUNTINGTON, N. Y.

Dear Sir:

I am amazed that such an error could be made. . . .

WILLIAM F. JONES
ROCHESTER, N. Y.

Dear Sir:

. . . The cars shown have grills typical of front engine cars.

JACQUES P. WOLFNER
WOODHAVEN, N. Y.

Dear Sir:

And then—this morning I awakened and found my 1960 Chevrolet was a Corvair and apparently the 1961 Chevrolet is a Corvair also?

L. N. CHRISTENSEN
CHICAGO, ILL.

Dear Sir:

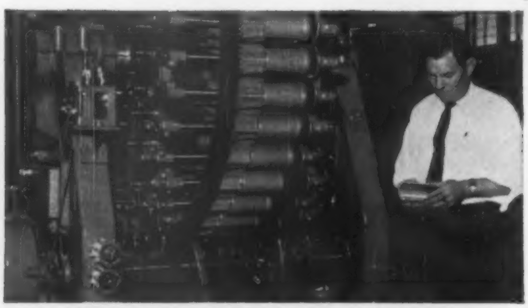
Do you mix Carstairs with Bel Aires to get Corvairs?

WILLIAM B. HELENE
SENECA FALLS, N. Y.

Located amid the apple orchards of historic Shenandoah Valley, CCS plant has 40 acres including ample room for expansion. Site is served by railroad and by Virginia's excellent, fully paid for, highway system.

Crown Cork & Seal Company Finds "High-Calibre Employees"

in VIRGINIA



Plant Manager makes spot inspection at the pressure tester which automatically tests for leaks under pressure. Plant boasts all modern production equipment.

Cans are fed by overhead conveyor into rail cars inside plant. The utilization of the newest can handling systems for both truck and rail are a feature of the plant.

Crown Cork and Seal Company, Inc. located its up-to-the-minute can-manufacturing plant at Winchester, Virginia, to serve the booming apple-processing plants of the Shenandoah Valley, as well as canners in neighboring states. Operations commenced in September, 1959, and proved so successful that CCS is now installing additional equipment in the new plant.

In explaining the unusual efficiency of their Virginia plant, Crown officials point out, "our very successful first year of operation has been due to the high calibre of employees available in the area, and to the low absenteeism which resulted."

Find out more about the manpower and marketing advantages of Virginia. In confidence, phone, wire or write . . .

C. M. Nicholson, Jr., Commissioner
Division of Industrial Development and Planning
Virginia Dept. of Conservation and Economic Development
State Office Bldg., Richmond, Va.
Phone MIlton 4-4111 Ext. 2255

You, too, can find these... and many other great competitive advantages in

VIRGINIA

. . . a wonderful place to play or work

AVISCO® CELLOPHANE

HERE'S WHY: (1) Cellophane actually locks in flavor and aroma. (2) It seals consistently and securely—prevents escape of flavor and aroma at the sealed edges. (3) It provides the moisture control required to maintain freshness. And it's the only packaging film offering this unique combination of qualities at low cost.

What's more, cellophane is unmatched for sales-building transparency and sparkle. If freshness and flavor retention are essential in selling your product, choose Avisco cellophane, plain or printed. Phone or write for an appointment with our representative or a selected cellophane converter specializing in your field.

AVISCO

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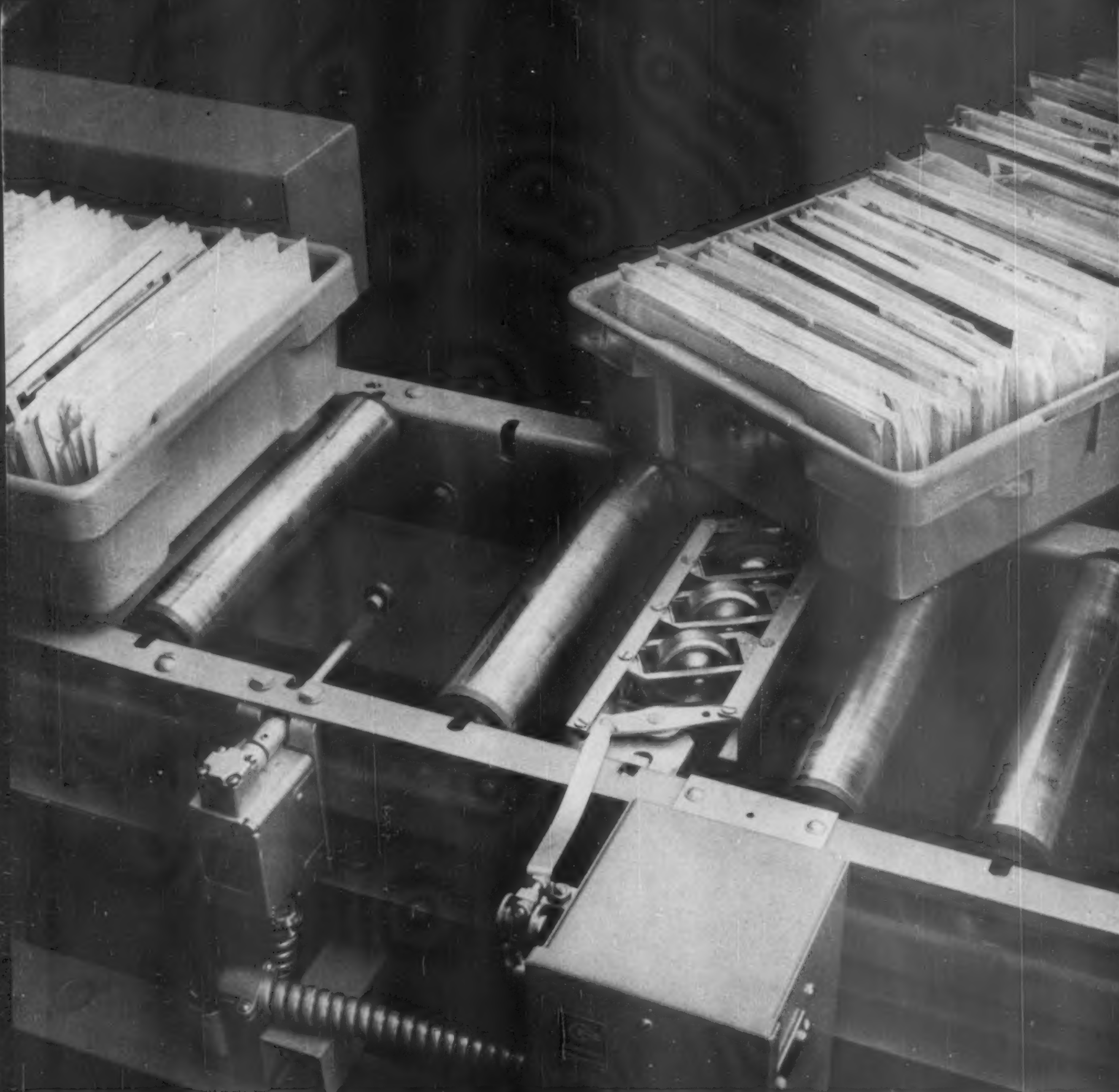
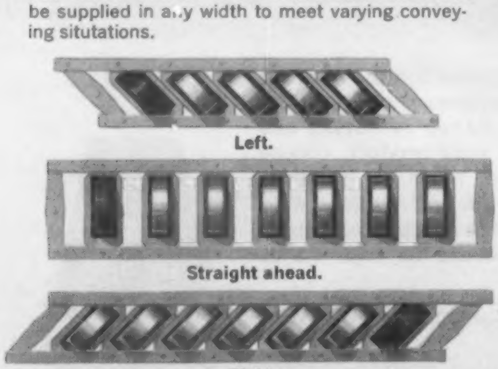
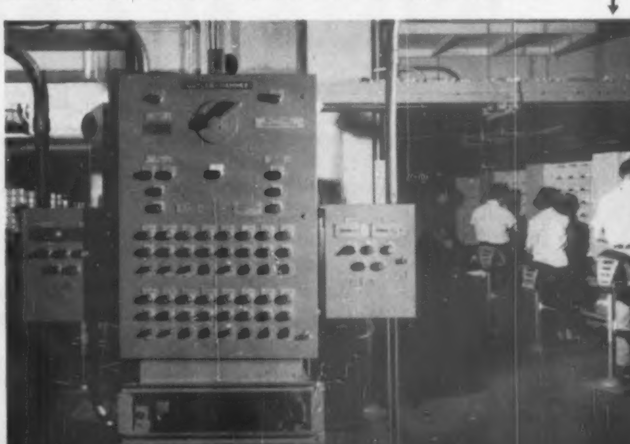


↑ **On command** from the card reader (left above) the skate wheel assembly turns, sending the tray where it is supposed to go.

Main control panel shows status of mail tray flow on conveyors. The inspector can tell at a glance which sorting station needs mail. ↓

The Cutler-Hammer skate wheel assemblies can be supplied in any width to meet varying conveying situtations.





CONTROL

What's new in control for automation?

How an idea and a roller skate wheel doubled the capacity of the Denver Post Office Conveyer System

Cutler-Hammer solution can also be used to increase capacity of industrial conveyor lines.

The assignment was to engineer a "Mail-Flo" system into the new Denver Post Office. This system is a method of routing mail from one sorting station to another on series of conveyors.

Displaying the kind of ingenuity that has increased the efficiency of many other materials handling systems, our engineers developed an idea involving a unique roller skate wheel assembly that doubled the system's capacity.

Formerly, metal arms were used as diverters to shunt the mail trays from one conveyor to another. There had to be at least a tray space between the trays to allow the arm to move back and forth. Cutler-Hammer engineers devised a simple, inexpensive diverter using a roller skate wheel assembly that allowed the trays to follow one another with little space in between. Result? A "Mail-Flo" system *with twice the capacity and no increase in cost.*

The importance of the electrical control man. The control man can bring to your automation planning team experience from hundreds of different automation problems—small and large—and from many different industries. The earlier you call him in the better. He can save false starts. He can help you develop the most efficient methods to automate at the lowest practical costs.

What's new from Cutler-Hammer. We're ready for the great technological growth of the sixties with new, better products, new engineering talent, new plant capacity—in fact, a new spirit. We'd like to show you how we could help you with your plans for automation. Put in a call to the nearest Cutler-Hammer sales office. Do it soon.

Automation is more efficient when the Cutler-Hammer man is called in early

WHAT'S NEW? ASK...

CUTLER-HAMMER

Cutler-Hammer Inc., Milwaukee, Wisconsin • Division: Airborne Instruments Laboratory • Subsidiary: Cutler-Hammer International, C. A. Associates: Canadian Cutler-Hammer, Ltd.; Cutler-Hammer Mexicana, S. A.

CONTROL

EAGLE EP PICHER

EAGLE-PICHER

Manufacturer's Manufacturer

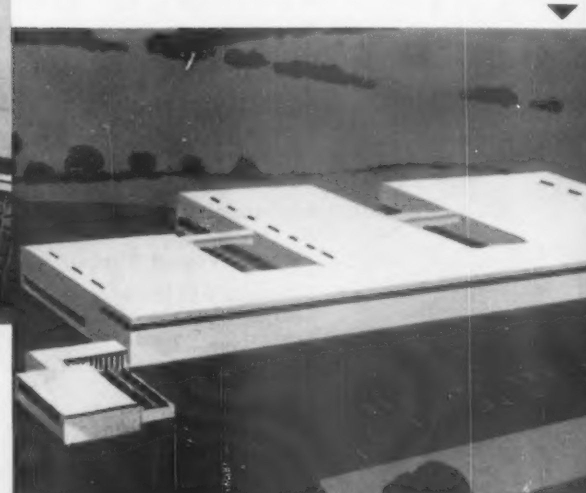
So broad is the scope of the raw materials and component parts produced by Eagle-Picher that it is likely to include much of interest to *any* manufacturer.

Each of Eagle-Picher's primary divisions, with strategically

Strength Through Planned Diversification

INSULATION DIVISION
Just about as handy as a zipper is the Eagle-Picher closure on Tab-Lok pipe covering. Bend three tabs, pull tight and you have a first-class insulating job. Tab-Lok is but one of a complete line of insulations which Eagle-Picher offers in a "manufacturers' department store" of insulation materials and forms.

OHIO RUBBER COMPANY DIVISION
To meet customer demand and to provide fast, closely integrated service, the Ohio Rubber Company is building at Fort Smith, Arkansas, this newest of five conveniently located plants. This Eagle-Picher Division supplies molded, extruded and rubber-to-metal products.

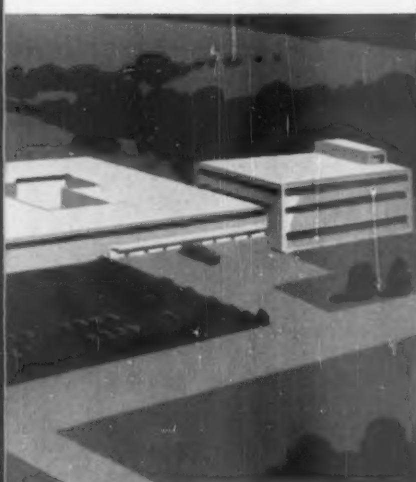


SINCE 1843 EAGLE EP PICHER

CHICAGO VITREOUS DIVISION
Here is another Eagle-Picher plant . . . this one for the Chicago Vitreous Corporation Division, an important producer of *frits*, a basic material for making porcelain enamel. In this new plant, the Lusterlite Corporation, a subsidiary, produces steel frames for the modern porcelain-enameled service stations which they manufacture and erect.

located plants, is dedicated to meeting individualized needs. Understanding of *other* manufacturers' production and distribution problems has made Eagle-Picher a preferred source of supply in dozens of industries. We welcome your inquiries.

FABRICON PRODUCTS DIVISION
Polyethylene is among the newest and most successful materials of Eagle-Picher. Produced by Fabricon, polyethylene finds wide-spread use in the food, paper products and textile industries. A diversified list of commodities enjoy added sales appeal and longer shelf life thanks to polyethylene extruded by Fabricon.



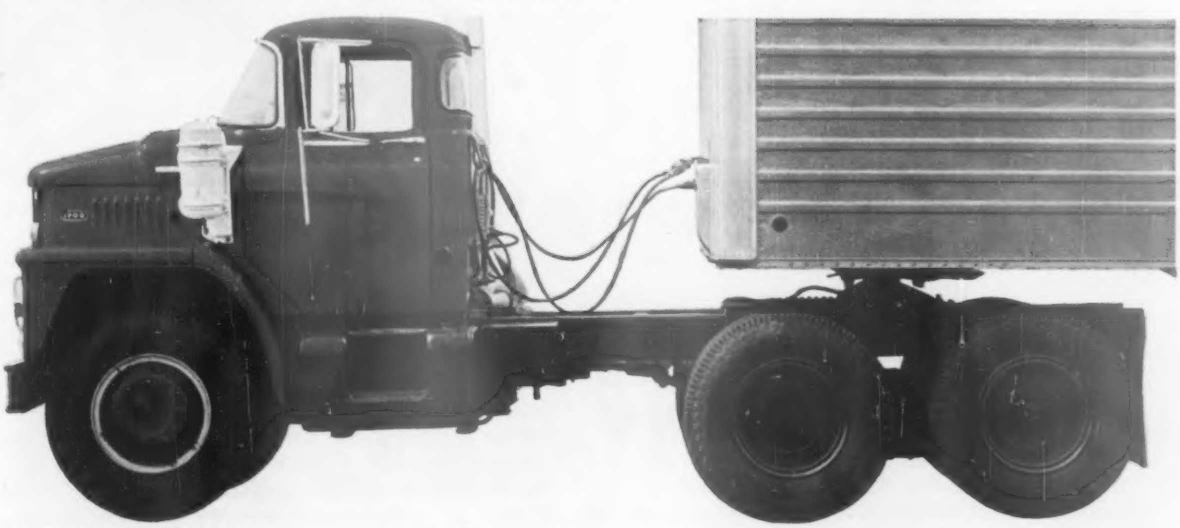
CHEMICALS AND METALS DIVISION
Permox 1-4-3 provides paint manufacturers with an effective, easily-tinted, anti-corrosive pigment for all three paint coats—primer, intermediate and finish. This is but one among dozens of outstanding zinc and lead compounds and rare metals from Eagle-Picher's Chemicals and Metals Division.

THE EAGLE-PICHER COMPANY • GENERAL OFFICES: CINCINNATI 1, OHIO

You're looking at a tough gang of trucks, tight-fisted, easy-riding **1961 Dodges.** And, Mister, they're new right down to the last wheel stud. Loaded with muscle, hustle and money saving ways. Now priced to compete with any truck coming or going. Gasoline and diesel-powered. Rated from 4300 lbs. GVW to 76,800 lbs. GCW. There's a '61 Dodge that'll do better on your job than anyone's done before. Get it. Then work the pants off it for next to nothing. See your **Dodge** dealer now!

All-new 1961 Dart ½-ton pickup, the first and only truck with compact-economy. Available with 6½′ and 8′ Sweptline pickup bodies. GVW to 5,100 lbs.

All-new 1961 Dodge D500 with stake body. Maximum GVW, 19,500 lbs. 318 and 361 cu. in. V8's or 251 cu. in. 6-cylinder engines available.



1961 Dodge NCT1000 tandem tractor with 743 cu. in., 220 gross h.p. Cummins diesel engine standard. Maximum GCW, 76,800 lbs.

Dodge builds tough trucks.

A PRODUCT OF CHRYSLER CORPORATION

Fabric protects equipment on Army's new giant dredge

Left: Newest, largest, fastest sea-going hopper dredge on Great Lakes. With three times the capacity of any other, it can dredge to 43½-foot depth.

Above: U. S. *Markham's* aft emergency steering station—emergency steering, magnetic and gyro compasses protected by fitted covers of Wellington Sears duck.

With the opening of the Saint Lawrence Seaway, new deep-draft vessels servicing Great Lakes shippers created a demand for increased harbor depths. The U. S. Army Corps of Engineers added the U. S. *Markham* to the fleet of hopper dredges maintaining the harbors of Lakes Erie and Ontario.

Wellington Sears cotton ducks were the choice of The Foster Company of New Orleans for fabricating covers to protect the deck equipment and small boats of this ultra-modern vessel. Specially treated for water-tightness and mildew-resistance, they safeguard vital equipment against the severest effects of weather.

In both synthetics and cottons, Wellington Sears has a long and varied history of engineering industrial fabrics to specific jobs. Why not take advantage of this experience? Write for technical assistance—and our free illustrated booklet, "Protective Cover Fabrics," Dept. C-10.

WELLINGTON SEARS WEST POINT TEXTILES ®

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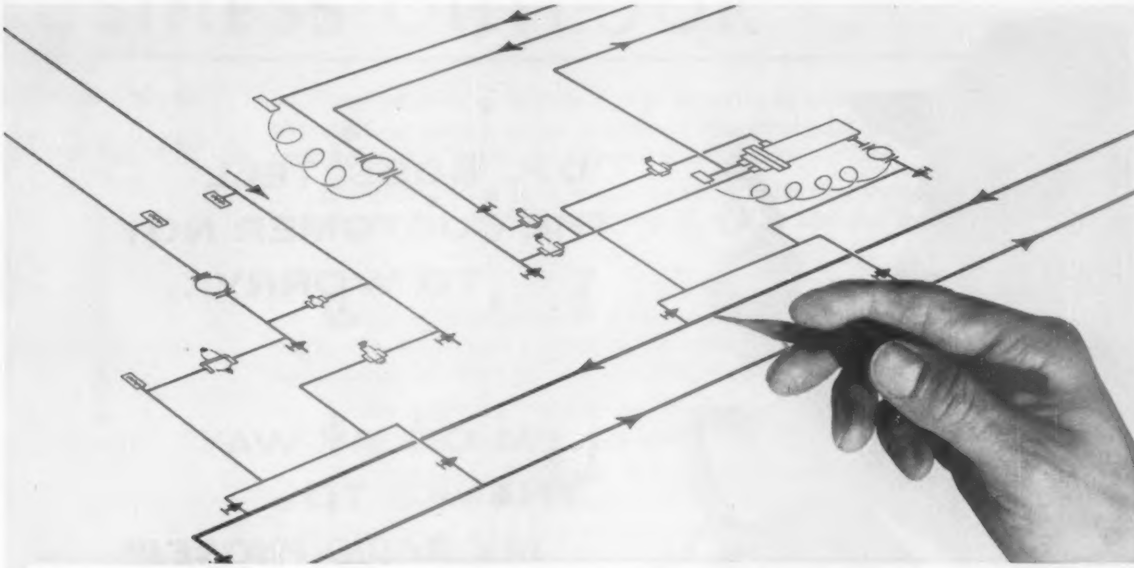
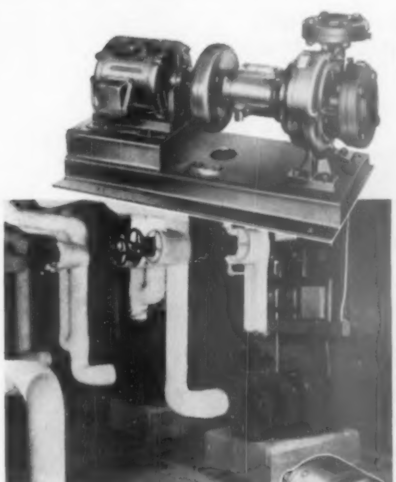
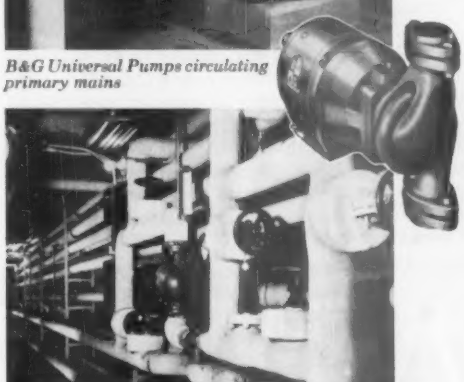




B&G Universal Pumps circulating primary mains



B&G Booster Pumps supplying individual heating zones

New heat distribution principle cuts heating system operating costs

Where multiple buildings or multiple zones within a building are to be heated with circulated water, *primary and secondary pumping* materially cuts heating cost. This principle, as conceived and developed by Bell & Gossett engineers, both reduces pump horsepower and saves fuel by improving heat control.

A typical system consists of a primary main continuously circulated by a B&G Universal Pump, with smaller B&G Booster Pumps drawing on the main to supply separate heating zones. Each zone pump is under individual thermostatic control, so that the zone can be supplied with exactly the amount of heat required by its function or exposure.

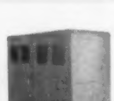
Your consulting engineer or architect can give you complete information on this more efficient, more economical method of heating.

BELL & GOSSETT COMPANY
Dept. GJ-30, Morton Grove, Illinois
Other plants at
Chicago, Illinois • Midland Park, N. J.
Longview, Texas • Gladstone, Michigan

Canadian Licensee: S. A. Armstrong, Ltd., Toronto 16, Ontario

A DIVERSIFIED LINE OF HIGHEST QUALITY PRODUCTS

Booster Pumps



Package Liquid Coolers

Refrigeration Compressors

Marlow Pumps

Heat Exchangers

Oil-less Air Compressors

RCA MARK VII *Radio-Phone*
CRM-P3A-5 Citizens' Radio
Manufacturer's Nationally Advertised Price **$189.95**

Small business or large . . . there's an RCA radio system designed to fit your needs. For reliable short range communication, there's the sensational new RCA Mark VII Radio-Phone! This low priced, high quality 2-way radio gives you contact with the "man-in-the-truck" . . . saves precious minutes on the road and paves the way for lasting friendships with your customers. The Mark VII can be used at mobile or fixed points—for truck and office. Provides four crystal-controlled channels for transmit and receive; also manual receiver tuning for all 23 channels. No operator's exam is necessary—all you need is the easily obtainable FCC Citizens' Radio License. Units available for 6- or 12-volt battery operation. Also operates off house current.

For information on the Mark VII Radio-Phone—and other quality RCA communications equipment—contact your RCA mobile radio specialist, or write RCA Communications Products, Dept. MC-26, 24 Murdock St., Canonsburg, Pa.

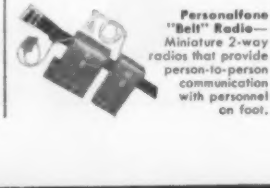
RCA 2-WAY RADIO

The Most Trusted Name in Electronics
RADIO CORPORATION OF AMERICA

RCA RADIO SYSTEMS FOR EVERY BUSINESS REQUIREMENT

Flexible Lease and Purchase Plans Available

"LD" Transistorized Mobile Radio—Quality communications equipment for greatest signal coverage, finest performance, top dependability.



Personalfone "Belt" Radio—Miniature 2-way radios that provide person-to-person communication with personnel on foot.

Carfone Mobile Radio—Performance-proven in thousands of commercial, industrial and municipal applications.

BUSINESS OUTLOOK

BUSINESS WEEK
OCT. 22, 1960

A BUSINESS WEEK SERVICE

Auto builders show little sign of believing in a recession. Their output, almost alone among major industries, has continued to buck the general production trend ever since their model change.

If sales live up to production, **the auto people may swing enough weight to arrest the downdrift now showing up in most business indicators.**

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Almost anywhere you look excepting in the automobile industry, the **production trend seems to be deteriorating slightly** (and, in a few exceptional cases, the dip now runs to fairly major proportions).

Revised figures for August and the preliminary estimates for September dropped the Federal Reserve Board's index of production to 107.

This means **over-all output still is 7% above the 1957 average** (seasonally adjusted). But it's **4 points down from this year's high**—and about 3 points under the reading as lately as July.

Most of the weakness in the production indexes still centers in the primary metals—the obvious victims of the inventory squeezing.

Here output is down more than 30% from this year's high.

But the very depth of that drop could mask a point of strength: **Industries using the primary metals have cut output only a tiny fraction of 30%—the difference coming out of inventory.**

By now, almost everyone agrees this can't go on much longer.

Production of **farm machinery** and equipment and of **TV sets** have nose-dived, it is true (down 30% and 15%, respectively).

But the output indexes compiled by the Federal Reserve Board on **other lines show quite small changes**—and their declines have come to light, for the most part, only in the last couple of months.

So it is with **business equipment**, for example, whose peak came in July. The decline in August and September adds up to only 2%.

Equipment made for **industrial** and for **commercial** establishments show signs of **pursuing opposite courses**, as happens from time to time.

Orders for many types of machinery have been slow the last two or three months (and prices have, in fact, weakened in a few lines). This has caused a small **decline in output of industrial equipment since March.**

But **production of commercial equipment still is advancing;** buyers have felt little contraction in their own sales and, in 1958, showed boldness in taking advantage of sagging prices to push expansion.

One reason the production indexes have lost some of the steadiness that characterized earlier months is that **nondurables have sagged a bit.**

Most months in 1959 and the first half of 1960 weighed in with new records for softgoods output. August, however, broke the skein, and the preliminary estimate indicates September was down about a point.

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Retail sales figures for September signaled some tapering off in seasonally adjusted demand for softgoods (BW—Oct.15'60,p25).

That traces, in turn, to slower growth in buying power. **Month-to-month gains in personal income have been tapering ever since April.** For September, the gain (at an annual rate) was only $200-million compared with a rise of almost $5-billion from March to April.

Perhaps the most serious flaw in the purchasing power picture is **the decline in the mass market represented by income from wages and salaries.**

This hit its top in July and has been declining since.

For manufacturing alone, **the payroll situation is even less satisfactory.** Here wage-and-salary payments have been going down since May.

Declining factory payrolls were **touched off by the troubles in durable goods** whose work force has been declining since February. Since May, the **hours worked each week** also have been shortening.

Rising employment in factories turning out nondurables, up till now, had provided a partial offset. **But September employment in softgoods failed to come through with even a normal seasonal increase.**

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This week's estimate of September housing starts robbed the preceding month's upturn of all its hopeful implications—if you take the figures at full face value.

In fact, anywhere you went in housing circles this week, you encountered **shocked disbelief**—and not infrequently a declaration that the figures on starts no longer are useful as a forecast of activity.

Recent reports have befuddled everyone by their wide swings. Here's the picture (at seasonally adjusted annual rates): June, 1,302,000; July, 1,181,000; August, 1,295,000; September, 1,077,000.

Weather, as well as economic factors, has a hand in the timing of housing starts. And the Census Bureau noted, early in the summer, that its estimates thereafter would undertake to allow for such influences.

On that basis, the bureau warned, **it would be logical to expect somewhat wider variations** than had been the rule in times past.

September, of course, was beset by hurricane Donna. In addition, rains were above average over most of the country during the month. Even so, the figures have the experts wagging their heads.

Hopeful signs are showing up on the mortgage-money front, whatever effect this may have had on homebuilding up to now.

The U. S. Savings & Loan League reports **members' loans in September topped a year ago,** something no earlier month in 1960 had done.

Better availability of money has spurred builders in other postwar years, **but the trend now may be too new to have influenced starts.**

Contracts for big housing projects (valued at $400,000 and over) are being let at a great rate, according to McGraw-Hill's Engineering News-Record. Such jobs are one-third ahead of last year for the first 42 weeks of 1960—and close to the peak for this period, recorded in 1955.

This surge is mainly in apartment building (BW—Aug.27,'60,p127).

Biscayne 4-Door Sedan. All new Biscaynes (6 or V8) give you a full measure of Chevrolet quality, roominess and proved performance—and yet they're priced right down with many cars that give you a whole lot less!

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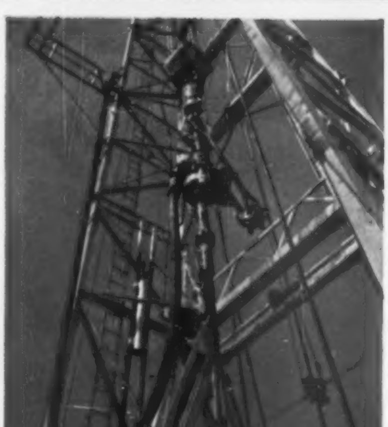
There's less out size in the new '61, giving you extra inches of clearance for parking and garaging. But more in size with seats as much as 14% higher and a shaved down driveshaft tunnel that leaves wide open space for feet. Larger door openings (up to 6 inches wider) make an open and shut case for comfort and convenience all by themselves, and that deep-well trunk shows you Chevy thinks big about baggage, too. Loading is an easy lift to the new bumper-level deck lid opening, and you can stack baggage 15% higher, thanks to the new recessed floor design. Here's the '61 car that's luxurious where you want luxury, and practical where you want thrifty, no-nonsense practicality. It's at your Chevrolet dealer's right now, the car that gives you a whole new measure of your money's worth!

Chevrolet Division of General Motors, Detroit 2, Michigan

CHEVROLET

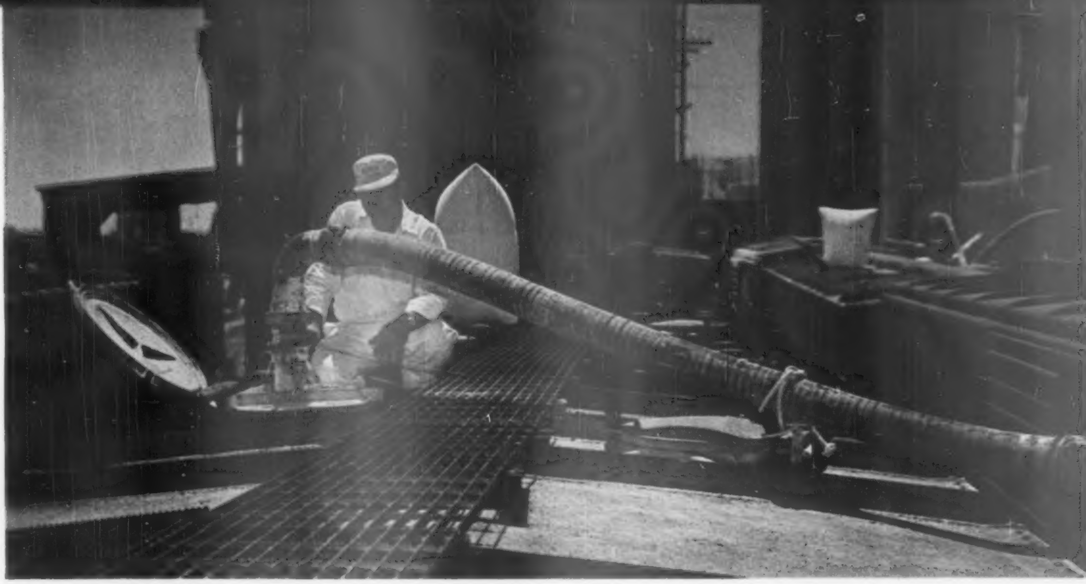
Impala Sport Coupe. One of five luxury-loving Impalas in Chevrolet's 20-model lineup for '61!

SARDINES SWIM aboard boat with an assist from B.F.Goodrich suction hose. A special soft rubber lining guarantees the thin-skinned swimmers a bruise-free passage. Taking aboard a ton of sardines a minute with hose is twice as fast as hauling in heavy nets by hand and shoveling fish into the hold.



OILY MUD GUSHES through BFG hose, is forced many thousands of feet down into an oil well to lubricate drilling tools, bring chips and cuttings to the surface. The pressure inside the hose is tremendous. Sometimes as much as 1½ tons on each square inch. But BFG hose is built to take it. Two plies of high tensile cabled wire inside the hose guard against blowouts.

MOLASSES RUSHES through hose—even in January. But unloading the sticky stuff at 26,000 gallons an hour from a tanker called for a special BFG hose. With steel wire buried in the hose wall, it's strong enough to hold the pressure needed to pump the molasses at high speed, tough enough to take rough handling.



FLOUR BLOWS through hose into a special railroad car. The light, easy-to-handle B.F.Goodrich hose is a cinch to operate. Hook it to a hatch, turn on the blower, and flour speeds through at an 800-pound-a-minute clip. Each car loaded this way by a Nebraska milling company saves some bakery the $250 it would cost if the flour were delivered in 100-pound bags.

You can't imagine all the stuff that blows, flows, swirls, swims, rushes, roars, gushes and pours through B.F.Goodrich hose

Seems like nearly every time we turn around someone thinks of something new for hose to do.

Take sardines. Commercial fishermen used to haul heavy nets over the side of the boat by hand, then shovel fish into the hold. Then a Maine canner got the idea that maybe fish could be taken aboard by hose. B.F.Goodrich designed a light, flexible hose that picks up fish like a vacuum cleaner.

A manufacturer needed a hose to handle broken glass. BFG developed it. Now it's used in scores of places for transporting brick chips, sawdust, coal and the like.

B.F.Goodrich makes hose to carry almost anything—from blasts of air to torrents of water, for scalding steam, corrosive chemicals, abrasive sand. And when a customer needs something new, we go all out to develop a hose that'll do the job—which explains why today *BFG makes more different kinds of hose than anybody.*

Any one of our 500 BFG distributors can explain the different types of hose we make, tell you what to expect from each, help you decide which is your best buy. If you prefer to have additional information before getting down to cases, send your question about any BFG product to the President's Office, *The B.F.Goodrich Company, Akron 18, O.*

B.F.Goodrich

HOT, CORROSIVE ACID SWIRLS through B.F.Goodrich hose at a Massachusetts plant manufacturing dyes and finishes for fabrics. The acid is so strong it eats its way through regular rubber hose, causing dangerous, costly leaks. But this acid hose, just developed by BFG, is lined with a new rubber compound that can stand even the most corrosive acids and chemicals.

GRIPENTROG

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BUSINESS WEEK

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Now—The Problem of NATO

● De Gaulle is trying to change the present arrangements for defense of Europe.

● But that's only a symptom. Europe is stronger. And the U. S. deterrent looks less effective in Europe.

● The U. S. is moving toward some sort of independent nuclear defense force for NATO.

Never since World War II has Western Europe been so prosperous, and so stable economically, as it is today. Nor has it ever been so united economically, if you look just at the six nations composing the European Economic Community (EEC). Except for the financial strain that Europe's economic strength puts on the U.S.—via our balance of payments—you might suppose that Western Europe would be exactly the kind of stable partner the U. S. needs in the cold war.

Yet there has rarely been a time since the war when political relations within Europe were so jumbled, or when the threat of basic strains within the Atlantic Alliance was so serious. Things have reached the point—on both counts—where the U. S. is being forced to reexamine the whole military setup of NATO.

• **Prime Mover**—There is no simple explanation for the almost chaotic flux in European affairs today. You can attribute part of it to relief from basic economic worries, part to the fight between EEC and the British-led European Free Trade Assn. (EFTA), and part to the U. S. loss of its decisive advantage in nuclear striking power. But, even in combination, these factors wouldn't have precipitated the present situation. It took France's Pres. Charles de Gaulle to do that.

De Gaulle, indeed, is the prime mover in the two-level shakeup that is going on today—in Europe and in the Atlantic Community. He wants not only to give France its own nuclear deterrent but to build the EEC group into an autonomous alliance within NATO—to be run, of course, by France. His ultimate aim, apparently, is gradually to reduce U. S. leadership in NATO.

• **Adenauer's Stand**—De Gaulle won't get his way, of course. His plans already have aroused opposition from the other European members of NATO, no less than from the U. S. Chancellor Adenauer of West Germany is especially disturbed, although for the past two years he has stuck with the Paris-Bonn axis on almost every issue even when that has caused trouble with London. One thing Adenauer won't agree with is to have de Gaulle undermine the U. S. position in NATO.

There are two quips going the rounds in Europe today that tell a good part of the story:

"When Adenauer is forced to choose between Paris and London he will always favor Paris. But when the choice is between Paris and Washington, the German Chancellor will never forget who liberated him."

And at Supreme Headquarters, Allied Powers Europe, they say: "When Gen. de Gaulle has finished with NATO, it will be like the Venus de Milo—all SHAPE and no arms."

• **Dangers**—For the U. S., however, there's this sober fact: De Gaulle's position and the opposite one being taken by a large section of the British Labor Party are two sides of the same coin.

Perhaps the real danger in the present situation is this: Even if de Gaulle doesn't get his way at the European end, he may delay fundamental military compromises now being worked out by the U. S. These would take account of the new nuclear balance between the U. S. and the U.S.S.R., and thus put U. S. relations with Europe on a more realistic basis.

Washington seems ready to go at least halfway in meeting the widespread European fear that the U. S. nuclear deterrent is no longer credible—because no enemy would believe the U. S. would risk destruction at home to save some European real estate.

One possible compromise: to give NATO, as an organization, a nuclear deterrent of its own.

• **De Gaulle's Aims**—De Gaulle's ambitions have never been a secret. Even before he took control of France in June, 1958, he made it plain that he wanted France to play a far larger role in the Atlantic Alliance. Yet much of his time since coming to power has been absorbed in putting the French economy back on its feet and in trying to end the Algerian War. He didn't formulate his main ambition at all precisely, built up only a sort of mystique.

Now, however, the General is pushing hard for action on his deferred projects—all designed to put France on a par in world affairs with what he calls the "Anglo-Saxon powers." Here, in short, is what he wants:

• An independent French deterrent force, and a large degree of French control over the use of French forces within NATO. Without this, he recently said, France would become "an integrated satellite."

• Regular consultation on defense and foreign policy among the heads of governments in EEC. This would be backed up with a permanent staff of experts on military, diplomtic and economic matters.

• Pooling of military training, arms procurement and logistics among the "Six." NATO's supreme commander would be responsible only for "operations."

• **Showdown**—So far Adenauer has stalled off the General, with support from Washington and London. The British don't like de Gaulle's military ideas any more than Adenauer does, and would be glad to have Bonn's support in breaking French opposition to a merger of EEC and EFTA.

But it looks as if a full-scale showdown may come soon. De Gaulle has called for a summit meeting of the Six in Paris this December, and it seems likely he will demand action on his proposals. It's a good bet, too, that this issue will dominate the annual ministerial meeting of NATO that is due to take place in Paris about the same time.

• **Acute**—The problem raised by de Gaulle's ambition is most acute in the military field. Here, he is trying to cash

in on a general concern among our partners that the alliance no longer provides security against the Soviets.

Before Sputnik, our NATO partners felt reasonably safe from any Soviet menace. Not that anyone in Western Europe thought NATO's thin shield forces could turn back a determined Soviet ground thrust. Instead, Europeans felt secure because of the ring of U.S. SAC bases around the Soviet Union. U.S. nuclear-armed bombers, operating from these bases, could clobber Russia harder than Soviet bombers could hit distant U.S. cities. So the Europeans reasoned.

Sputnik, and follow-up Soviet rocket achievements, changed this comfortable feeling. It was now felt that the U.S., faced with a showdown situation in Central Europe, would have to consider the possibility of Soviet missiles raining down on U.S. cities.

You could see the result of this changed situation as early as December, 1957, only weeks after the first Sputnik. At the special NATO summit in Paris, not even the presence of Pres. Eisenhower could convince most of our European partners they should permit establishment of IRBM weapons throughout the NATO region. Only Britain, Italy, and Turkey agreed. Even since that session, when the U.S. pledged itself to help its allies make or buy missiles, Washington has been trying to find a new formula to restore Western Europe's lost feeling of security.

• **Key**—The key to this particular problem is who controls the weapon in question. In Britain, Italy, and Turkey, the U.S. has worked out a dual-key and triple-key formula. In Britain's case, both London and Washington have to push the button to fire the missile. In Italy and Turkey, NATO has to, too.

This formula, however, doesn't satisfy our allies' deepest anxiety. Only a few Europeans may doubt U.S. determination to stand firm in Berlin; but in some other parts of the alliance area the line isn't so clearly drawn. Moreover, in the coming decade it's expected the U.S. probably will withdraw its ground forces from Europe.

• **New Formula**—As a result, Washington now realizes it must find a formula under which Western Europe has a chance to defend itself independently of the U.S. But here's where the rub comes in with de Gaulle. After months of secret talks with NATO members, Washington thinks it has the formula. The trouble is, it seems to satisfy everyone but de Gaulle.

The new scheme was first aired over a year ago by Gen. Lauris Norstad, Supreme Allied Commander, Europe. He suggested creating a fourth nuclear power—NATO itself. Washington reports indicate the State Dept. has taken over the idea: and it's understood State has had a favorable response from every NATO capital but Paris. It has Bonn's support partly because it is the only way West German forces can be equipped with nuclear weapons.

The formula calls for the U.S. to help its European NATO partners set up an independent nuclear strike force within NATO. Initially, Norstad sees NATO operating a fleet of Polaris-equipped subs, with crews made up of integrated technicians from NATO nations taking part in the plan.

Control—the crucial question—would be exercised not by Washington alone but by all participating members—through NATO's Council of Ministers.

• **Balky French**—The plan is expected to be laid before the NATO Council in December—but already, aides of Gen. de Gaulle are talking it down. They complain about its integration aspects, say de Gaulle won't go along with this. The plan also implies rejection of the national nuclear power de Gaulle wants for France—though he currently is getting reluctant parliamentary approval to spend considerable sums to create an independent nuclear strike force.

It isn't likely the French will accept the plan under present conditions. Of course, de Gaulle might be brought around if Britain agreed to abandon its independent nuclear strike force, or if a French commander headed NATO—both unlikely prospects.

• **U.S. Views**—Despite the difficulties, Washington is confident that an international NATO solution will be found to the problem of deployment, command, and control of nuclear weapons. It reasons that the economic and political strength of Europe has grown dramatically since the days when NATO was just a U.S. shield for prostrate Europe. If the alliance is to be preserved—and Washington has no doubt it will be—the European powers must get responsibilities equivalent to their new power. In a nuclear age, that means nuclear responsibilities.

The European NATO members now are able, economically and politically, to assure their own defense, at least collectively, if necessary. That means they must be provided with their own second strike capability within NATO, or they will inevitably be driven in time to build it outside NATO.

Europe, in other words—as Washington sees it—must itself be in a position at some early stage to deter Soviet attack through possession of invulnerable retaliatory power—a power that, in the event of attack on Europe, could be triggered regardless of decisions in Washington. Such a power would also make it easier for the U.S. to stand aside if it wished.

Overweigh

Fad or phenomenon, the success of Mead Johnson's Metrecal is luring competitors into the powdered food market.

Now you can get Metrecal in orange flavor. This week, Mead Johnson & Co., the company whose product made it respectable, even fashionable, to drink your lunch, is introducing the new taste to go along with its plain, chocolate, and butterscotch concoctions.

This is another fillip in the ever-widening phenomenon of metered calorie dieting that has set a nation of weight-conscious people to substituting a liquid food for an egg and dry toast.

Unsung, hardly advertised and promoted at the beginning, the meal-in-a-glass product, with its fixed 900 calories per day formula, has become a hot competitive business not only for the original Mead Johnson Metrecal brand but for scores of imitations.

• **In the Race**—The line-up right now includes companies such as Sears, Roebuck & Co. (Bal-Cal), United Whelan Corp. (Cal-a-Day), Quaker Oats Co. (Quota), Korvette's and Master's discount houses (Kor-Val and Master-Cal), Jewel Tea Co. (Diet-Cal), and Ovaltine Div. of Wander Co. (Minvitine). This is a sharply abbreviated list of entries into what is billed as a current domestic market of \$40-million to \$60-million annually. And other companies, such as Sterling Drug Inc. (Calorid), are test-marketing brands and extending their limited marketing areas step-by-step.

• **No Major Trick**—This private-brand field day is made possible because the product (1) contains no secret drug, and (2) is readily concocted of already known ingredients. Quality, say some in the trade, can be impaired by poor packaging, but otherwise there's no major trick to the formula. Big dairy companies, which have facilities for turning out nonfat milk powders, can easily step into making the product to supply local and national brands. In fact, Dr. Norman Joliffe of New York City's nutrition clinic says: "You can buy nonfat dry milk, take the right vitamins and achieve the same result."

• **How Good Is It?**—Though there is a lot of argument about whether the diet is good or bad, there certainly is no argument about the results. Those who are on a Metrecal diet do lose weight if they are persistent. Nutritionists, however, argue that they regain that weight quickly when they become disenchanted with the drink-a-meal regimen. What's more, they haven't achieved the most important thing modern diet treatment demands—the reedu-

Seize on Meal-in-a-Glass Diet

cation of the patient to develop proper eating habits.

Be that as it may, the U.S. public has, in a few months, created a business that boasts all the aspects of a hard-fought consumer product battle, with all the elements that go with it—including a full-scale proprietary drug type of advertising and promotion, and sharp price-cutting. (Prices for an 8-oz. can range from 76¢ to Metrecal's $1.29.)

What was once Mead Johnson's baby is now the child of the market-place.

I. How It Started

Such competition, however, doesn't prevent the industry—not to mention investors who have run up Mead Johnson's stock on the American Stock Exchange from a low of $60 this year to more than $140—from bowing deeply to the originator of what may turn out to be something more than a mere fad.

In just over a year since its debut, Metrecal has become Mead Johnson's largest single product. Over-all company sales jumped 45.8% in the first half of 1960 and earnings are 76% ahead, thanks mostly to Metrecal. If sales continue at anywhere near the same pace, the company's volume this year will reach an estimated $90-million or more compared to $59.7-million last year. Of this, Metrecal's contribution is $25-million to $30-million. Wall Street sees sales of $100-million, earnings doubling at over $6 a share.

• **Same Old Story**—This is no rags-to-riches story. Mead Johnson was doing fine without Metrecal. In fact, to an outsider, the company gives the impression of a well-established family that suddenly finds one of its investments paying off so richly that its fortune may conceivably be doubled. Like such a family, it seems to be trying to behave as though nothing exciting really happened. "Metrecal hasn't changed the company—and it won't change the company," an executive says emphatically.

Mead Johnson's selling efforts through the years, with its line of nutritional products such as Dextri-Maltose and Pablum, have been directed solely at the family doctor. It built a close rapport with the medical profession, as have drug houses. Distribution of all products was handled by franchised drug wholesalers. The only deviation occurred in 1950, when Mead Johnson began advertising Pablum in women's and parent's magazines and selling it through food as well as drug jobbers—partly because supermarkets were offering it anyway and competitive baby cereals were on the shelves.

• **Concentrated Food**—Metrecal came

METRECAL, Mead Johnson's lunch-in-a-glass measured calorie diet, is sweeping the country. The powdered food has a big potential market among the weight-conscious.

CAL-A-DAY. Whelan's version of the 900-calorie-a-day drink, is one of scores of brands selling over lunch counters—with new competition entering the field daily.

MASTER-CAL, Master's discount house brand, is pushed by offering samples on its busy main floor. Priced at 76¢ per 8-oz. can, it's one of the cheapest on the market.

along in September, 1959. It stemmed from a product called Sustagen, developed in 1953 as a highly concentrated food powder for patients needing massive doses of nutrients. It could be drunk with water or administered through an intra-nasal tube.

The company's researchers reasoned that the same approach might be used to develop a food powder with adequate nutriments but few calories for overweight persons. After all, dieting is on everyone's tongue and there are an estimated 25-million to 35-million overweight people in the U. S. today.

Mead Johnson had already made up its mind to aim its product line at all age groups, rather than mainly at infants, and also to go into pharmaceuticals. As a result, it expanded its research operations (spending went from $500,000 in 1952 to $3.5-million in 1960).

• **Development of Metrecal**—Mead Johnson spent a little more than a year developing Metrecal (meaning metered or measured calories) before it began clinical tests. The result was a substance that enabled persons in the tests to lose an average of half a pound a day. At the same time, their appetites seemed to be satisfied. There was no need to juggle calories to compute a complex diet. Beyond that, Metrecal contains no appetite depressants highly criticized by doctors, for it is drug-free.

• **Word Spreads**—This relatively simple idea combined all elements to give a person his needed nutriments, with enough calories to keep him healthy but few enough to lower weight. And it caught on fast. Mead Johnson was aiming at a medical need for the overweight person. The product was launched discreetly through medical journal ads, direct mail pieces, and doctor's samples.

Even so, word spread quickly, presumably through doctor-patient relationship and the years of experience the medical profession has had with other Mead Johnson products. The company discovered that sales were rising swiftly, despite a lack of consumer advertising. It decided on such a campaign, perhaps partly because it was interested in keeping sales climbing, but certainly also because its fine relationship with doctors and the confidence in its other products could be impaired if the product was misused by an uninformed public.

In any event, the first ads began appearing in June in mass circulation magazines. The ad, entirely words, is just about the antithesis of most consumer advertising, particularly of the drug variety. It consists of a sober statement of what Metrecal is, what it can and can't do, and (again with the family doctor in mind as a strong marketing force) with advice that "your physician is the best source of counsel and guidance in problems of weight loss and control."

This approach to the consumer, however, hasn't changed Mead Johnson's marketing system. Metrecal is still sold through drug wholesalers, although some food retailers and restaurant suppliers are going to these wholesalers for the product. In addition, the product, like the company's other ones, is still the subject of promotion beamed at the physician.

II. The Outlook

What everybody wants to know, of course, is whether Metrecal and its imitators are simply riding a fad. Mead Johnson thinks there are certain things in its favor. For one, Metrecal works, as some dietary products haven't. People, the company thinks, will continue to use it after having lost weight.

True, you get the feeling around Mead Johnson that the spectacular success of Metrecal was a surprise to all. But now it is apparent that a good product—and a simple scheme—can continue to tap a market full of people who will hardly become less weight-conscious over the years.

Then, too, the raft of Metrecal's imitators include big companies that don't ordinarily take a flier on something they figure is a one-shot affair. Sears, Roebuck has its Bal-Cal in 400 outlets (at 98¢ a can, it can't keep up with demand), and Ovaltine's Minvitine has achieved distribution in 300 outlets in six weeks.

Such companies will increase the pace of promotion, as another means of keeping the market boiling. Minvitine hits TV on the Garroway, Paar, and Person-to-Person shows. New flavors will be added (banana for Quaker's Quota, as an example).

• **Somebody Gets Hurt**—On the other hand, it seems clear that somebody will get hurt in the competitive race, although the bigger companies and Mead Johnson with its long head start and firm medical profession standing should outlast any shakedown at the marketplace. Yet all the new, quick entries into the market lend a sense of fadism to the whole business. Certainly, diet fads have swept the country before. New York's nutritionist, Dr. Joliffe, recalls that the Rockefeller diet, which offered much the same as Metrecal (except you mixed the ingredients yourself), was a 60-day wonder.

But Metrecal has already lasted a lot longer, and many are betting that the lunch-in-a-glass business has a long way still to go.

For one thing, Mead Johnson has just started market development overseas, and already finds the product going as well there as at home.

At Last

PAY-TV—of the broadcast or "over-the-air" variety—will move a big step nearer the launching pad next week. On Monday the Federal Communications Commission will open hearings on a proposal by Zenith Radio Corp. and RKO General, Inc., to operate a pay-TV station in Hartford for a three-year trial period. Despite the weightiness of the economic factors riding on the test's results, the FCC will close down the hearings promptly next Friday. It will hear recommendations on any unfinished pay-TV business up until Dec. 1. It should render its decision early in January.

That decision will almost certainly be yes. Given this green light, Zenith and RKO think they can have their test project on the air in the fall of 1961.

I. Why the Test?

The odds-on likelihood of FCC approval calls for some explanation. Pay-TV's history traces back through a decade of abortive trials and power lobbying by both opponents and proponents. Public relations outlays have been lavish on both sides. Pressure on Congress has risen so high that the legislators twice rejected FCC proposals for a test run of pay-TV—first in 1957 and again in 1958.

Last year they accepted the FCC's third try that laid down these essential conditions: (1) the over-the-air test would take place in one area only; (2) it would be an area where at least three other stations would offer competitive free TV; (3) the test would run for three years and then FCC would report to Congress.

• **Few Squawks**—In spite of this battle-scarred history, few voices will be raised against the application in next week's hearings. The networks won't even be present. After years of violent opposition to pay-TV they are relinquishing free TV's representation to the industry association, the National Assn. of Broadcasters. The Theater Owners Assn., long a bitter foe, will be sending in only a local team of Hartford movie exhibitors. The Connecticut Committee Against Pay-TV, an amalgam of veterans, women, and civic groups, is the only other opponent entered in the lists.

Officially, the networks are staying out because they regard a test of pay-TV's economic feasibility as inevitable. Unofficially, they are still too edgy about the quiz show and plugola furor to engage in open conflict on Capitol Hill. On a more practical level, they doubt their now familiar arguments would dissuade the FCC from following its appar-

a Viewing for Over-the-Air Pay-TV

● The FCC will probably give the green light to a proposed test of wireless pay-TV in Hartford.

● Petitioners Zenith and RKO General believe they can have the project on the air by the fall of 1961.

● Whatever the outcome of the three-year test, neither company is counting on profits in the near future.

ently determined course of putting pay-TV to a practical test.

Recently, FCC Chmn. Fredrick Ford told reporters that the practical outcome of the hearings would be considerably affected by their judicial form. If they had been evidentiary hearings before an examiner, pay-TV opponents would still have had available a series of time-consuming legal maneuvers. Since the commission is sitting en banc—with all seven commissioners present—any decision can be implemented speedily. The FCC set precisely one week for the matter, invited only directly interested parties to participate, and limited the right of cross-examination. Ford has expressed his view that this rancorous question should probably be settled by proceeding with an actual test.

• **Wired Competition**—Another factor may be expediting the Hartford test. A pay-TV system using wires instead of broadcasting has been in operation in Etobicoke, Ontario, since March (BW – Mar.12'60,p131). Paramount Pictures Corp., the parent of this experimental system, won't say what it has learned, other than that it is nearing its first-stage goal of 6,000 subscribers. The local system operator acknowledges: "We just aren't making any money on it yet." But Paramount didn't expect profits at this point. Profits or no, Paramount says it will proceed with plans to establish wire systems in the U.S. within the year.

The FCC has taken pains to point out that it lacks the authority to regulate such wire systems. Some observers feel the commission wants to start on-the-air tests before pay-TV slips by it in the form of a wire setup.

II. How It Will Work

The application for the Hartford station sets forth the outlines of the proposed pay-TV operation. The station, WHCT, will run as a hybrid: It will provide at least 28 hours of pay programing, mostly in the prime-time evening hours; it will round out its broadcast day with a normal fare of sponsored or sustained programs. The station will send out its pay programs in scrambled form.

• **Versatile Decoder**—The viewer will pay a nominal $7.50 to $10 installation fee for a decoder to be mounted on his set—plus $50 for a UHF converter if he doesn't already have one. The decoder will unscramble the pay program signals and record a charge for the program, with rates running from 25¢ for an educational show to $3 for a top attraction like a championship fight or Broadway play. Charges for feature films will run from 75¢ to $1.25. At the end of the month, the decoder will spew out a bill that the subscriber will be expected to send in with his check. RKO General will run the station, while Zenith will supply the decoders at less than cost.

• **Programing**—But these operating details don't answer the big question: What will subscribers be paying to see? RKO won't answer specifically, other than to say it has retained impresario Leland Hayward to direct its programing and that it will spend at least $10-million for pay programing during the three-year period.

The question is sure to spring up in the hearings. The local movie theater owners, in particular, will try to flush out any agreements between RKO and movie distributors that would commit first run films to the pay-TV station. RKO argues that any such agreements are still in the negotiating stage and hence not subject to public revelation at this time. Chances are, FCC will buy this argument.

• **Sports Fare**—RKO may face more rigorous investigation on its sports program plans. In its application, the company pledges it will not try to present any sports events now offered free on TV. This rules out a lot of top attractions that now appear on Hartford screens: the World Series, New York Yankee games, and a baseball game of the week on Saturdays; the NCAA football games, plus both American and National Football League professional games.

This full menu doesn't leave much for RKO to offer, unless it should lure one of these attractions into retiring from the area's screens for a period and then reappearing on its pay station. Both opponents and proponents of pay-TV admit that it needs a liberal dash of top-flight sports programing. The opponents may be able to embarrass RKO at the hearings by saying that pay-TV will wind up charging viewers for what they now see for free.

• **Why Hartford?**—Why was Hartford chosen for the out-of-town opening of pay-TV? Zenith and RKO considered a number of test sites before narrowing the list down to San Francisco, Milwaukee, and Hartford. They settled on Hartford because of its proximity to New York City's wealth of program material—and also because RKO could pick up the station at a relatively modest cost. WHCT enjoys a reputation for providing good programs—but it happens to be a UHF station, few of which can show a record of consistently turning a profit.

While RKO doesn't say so, it may have liked the idea of a UHF test station. UHF reception requires the installation of a UHF signal converter, at about $50-$75 per set. About 300,000 Hartford sets are so equipped. By selecting a UHF station for its pay-TV trial, RKO has filtered out of its test group viewers with insufficient interest in TV (or money) to pay for a converter.

RKO may also have hit on a solution for another FCC problem by suggesting the use of UHF stations for pay-TV. The converter problem has held down the number of applications for the many available UHF signal bands, while the FCC faces mounting demand for the few VHF channels.

III. Future Payoff

What's in it for RKO and Zenith? The application reveals agreements between the two companies that indicate they both view this as a long-term proposition that will probably entail considerable deficit financing in the immediate future. Zenith, operating through an affiliate, TECO, Inc., will charge RKO a sum covering only labor, materials, and administration for the decoding devices. If the system is approved, Zenith will get a substantial additional payment covering profits and development costs.

If pay-TV becomes big business, Zenith and affiliates will enfranchise one company in each TV market to distribute its pay-TV systems. RKO has been promised five of the potentially most lucrative franchises. Zenith hopes the FCC will declare its system the standard for pay-TV. FCC has made this kind of decision before.

SUNDAY CROWD that reached 216,000 chokes 300,000-sq. ft. main exhibit floor's display of 1961 cars and trucks.

VINTAGE CARS, 30 in all, approach Cobo Hall's ramps in nostalgic procession Sunday. Owner-drivers were treated to lunch.

AUTO WONDERLAND was industry's display of how car develops. This is clay model composite of five '61 cars.

Auto Viewers Mob Detroit's Cobo Hall

Pres. Eisenhower, whisked along on a hurried tour of the National Auto Show, voiced the commonest complaint heard in Detroit's Cobo Hall this week. "I'm trying to get a look at these," the President muttered in exasperation when photographers blocked his view of shiny new cars gliding along a conveyor belt over a pool of colored water.

The other thousands who crowded into the gigantic showplace had no Secret Service men to push back the crowd. But if this was the only complaint spectators had, it fell happily on the ears of auto industry executives.

• **Big Hit**—There was no doubt that the 43rd National Auto Show had sold itself and its mint-new Cobo Hall, at least to residents of the Detroit area. The white-suited doormen who were clicking off attendance with small hand counters may have clicked too furiously at times. But show officials say this wouldn't substantially change a grand total of about 450,000 persons in the first four days.

Attendance wasn't the only goal for the show. The auto industry was trying also to sell Detroit as a convention capital. It succeeded at least in impressing out-of-towners with the vastness of Cobo Hall, and that's a good start for Detroit's aims.

• **Convention-Type Trade**—But to the hundreds of persons milling around in hotel lobbies during the weekend with no place to go, Detroit still left something to be desired. There was a great exhibition of Flemish art this week at the Institute of Arts and old trouper Marlene Dietrich was appearing at the Shubert Theater, yet visitors still were wondering how to fill the hours when they weren't sleeping, eating, or fighting the crowds in Cobo Hall.

Detroit-area residents drove to the auto show in such great throngs Friday and Saturday that the city was bursting with traffic jams. City officials admit with embarrassment that only six policemen were on duty afoot in the downtown area Friday night when a huge traffic jam developed. But they say convention business wouldn't create or be affected by such tieups—most people would come by train or plane.

• **Business Success**—As the crowds began thinning out by midweek, the least impressionable people of all as far as cars are concerned—dealers and salesmen—began counting up the benefits of the biggest auto show ever staged. And they, too, were impressed. A Rambler executive said dealers in his display took the names of 150 "good prospects" on Saturday alone.

You couldn't find a dealer who had anything bad to say about the show—and that, in the business sense, was the biggest tribute the show got.

DANCER limbers up backstage for half-hour musical revue given four times daily.

TWO PRESIDENTS—Eisenhower of U. S. and L. L. Colbert of Automobile Manufacturers Assn.—sit together at banquet after Presidential tour of show Monday night.

The Weather on Election Day

● Nowadays, that means economic weather and how it looks to the voters.

● Mostly politicians assume prosperity helps Republicans, unemployment and depression produce Democratic votes.

● Here's a report on the business conditions voters across the country will be aware of as they go to the polls.

Politicians used to go by the truism that rain on Election Day was good for Democrats. The theory was that muddy roads would keep the Republican farmers away from the polls. Nowadays, roads are paved and, more important, farmers waver more in their allegiances.

Now the pros lean on another truism: Good business weather is good for Republicans, a sagging economy gives Democrats a boost.

In the last Congressional elections, in 1958, the truism seemed to work. Effects of the 1957-58 recession lingered in the small towns of the Midwest, in the coal and rail centers of the border states, and in the industrial metropolises of the North and East. Democrats wound up with an even firmer hold on Congress, winning 47 more House seats and 11 more in the Senate.

This year, therefore, the state of the economy preoccupies both Nixon and Kennedy headquarters. Advisers to both candidates pay daily devotion to the slightest moves among the economic indicators.

They read the statistics differently. "The economy is stale and soft," says a Kennedy man. "We think it's one of our best issues." From one of Nixon's key men comes the reply: "The Democrats are overplaying this kind of talk. If things got suddenly worse, it would hurt—no question about it. I don't think they will."

This week, BUSINESS WEEK editors and reporters address themselves to an economic weather forecast for Nov. 8.

I. Two-Way Yardstick

Over-all, the business trend is slightly downward if you take seasonal changes into account; it is slightly upward if you don't. Technically, to the economist, the nation is in a slight recession —with gross national product dropping at least $2-billion in the third quarter and with the Federal Reserve Board's index of industrial production down to 107 in September from January's peak of 111. But the nation is not made up of economists. Total employment is at a record for this time of year. So is personal income.

• **GOP Bugaboo**—The one figure that Nixon men admit they can do little about—and that gives Kennedy's recession theme its greatest mileage—is unemployment. But that is looking better. Seasonally adjusted, it was down to 5.7% in September from 5.9% in August. The total number (adjusted) was 3.4-million after going above 4-million during the summer. The average voter, of course, doesn't put seasonal adjustments into what he sees around him. Unadjusted, the figures look even more cheerful; unemployment in September was only 4.8%, down from 5.3% in August.

Despite the high level of employment and the improvement in unemployment, short work weeks are hurting take-home pay, particularly in manufacturing. Wage and salary income in manufacturing was down to $87.2-billion in September—$2.5-billion less than the annual rate at May's peak. The rise in personal income was produced by an increase in government transfer payments—for Social Security and unemployment and veterans' benefits. Farm income also is on the upgrade because of high crop production and prices that are comparable to last year's.

II. Seven Votes That Count

Looking at the economy as a whole, however, is not enough. Presidents are elected by electoral votes; the winner in each state takes all. To get a better idea of the economic weather in which the candidates actually will be competing, you have to take a state-by-state look (table).

The states that particularly bear watching are the seven with the most electoral votes: New York, California, Pennsylvania, Illinois, Ohio, Texas, and Michigan. Together, they have 205 electoral votes—only 64 less than needed to elect. And although three of them showed Democratic leanings until the Eisenhower years—California, Illinois, and Texas—none today is safely in either candidate's pocket.

• **New York Predictions**—With a smaller concentration of industry than other Eastern or Great Lakes states, New York is enjoying a slight growth in nonmanufacturing employment. Its industrial force, still considerable at 1.9-million, merely holds steady. Predictably, New York City is in line with the state pattern: growth concentrated in white-collar jobs.

Layoffs in steel have spread throughout the Buffalo area, where mills are running around 50% of capacity. Chemical employment around Niagara Falls is off, and fewer construction workers are required for the Niagara power project as it approaches completion. The area has derived some strength from the completion of auto model changeovers and from slight growth in fabricated metals and electrical machinery.

Rehiring at auto parts plants also has stimulated the Syracuse area. Except for this seasonal change, there are no significant ups or downs. Rochester is doing well; as Eastman Kodak lets employment decline through attrition, others in the photo-optical field pick up the slack, and even the clothing industry is stable once more after some layoffs. Around Albany, where unemployment has been running above 6%, a number of machinery and transportation equipment plants have been cutting back. Of greater importance in this area is the General Electric Co. strike.

• **California Clouds**—In California, there is a sobering realization that the rapid growth and plenty of jobs for every newcomer is over. No one expects a drop. It's simply, as one economist put it, that he "never felt more uncertain about the outlook in California."

The changes and cutbacks in aircraft and aerospace industries have been the major culprits. They caused San Diego last month to be classified as an area of labor surplus. And there is some fear that Los Angeles will be similarly classified in 1961. Aircraft cutbacks are nothing new, but there is a new twist that causes concern: Formerly, other industries such as electronics picked up aircraft's slack; now electronics itself is growing at a slower rate.

Other areas of the state—San Francisco, Oakland, San Jose, Sacramento, Stockton, Fresno—are not basking in prosperity, but they are not showing signs of distress either. Employment in auto assembly, for example, is up 3,000; electrical machinery, up 1,400; apparel and paper up modestly; and cannery employment is rising seasonally—but slightly—with the shift from peaches to tomatoes. Retail store employment also is up slightly. But, off-

How the States line up

D—STRONGLY R—STRONGLY ?—CONTESTED

STATE	ELECTORAL VOTES	POLITICAL PICTURE	BUSINESS CONDITIONS
ALA.	11	D	Despite weakness in steel, employment is improving slightly through scattered gains.
ALASKA	3	D	Employment up a bit from year ago, but seasonal drops in canning, building, lumber.
ARIZ.	4	R	Jobs set record with gains led by trade, government, services, building.
ARK.	8	D	Weakness in metals and lumber offsets slight growth in other industries.
CALIF.	32	?	Growth rate slowed by defense cutbacks and steel slowdown. Farm receipts up.
COLO.	6	?	Employment well ahead of year ago, led by teaching and missile manufacturing.
CONN.	8	D	Nonmanufacturing gains push employment up; unemployment at year's low of 5%.
DEL.	3	?	Growth of jobs in chemicals and autos offsets drops in steel, building, tanks.
FLA.	10	?	Year's growth smallest of decade. Construction jobs down 12%; good citrus crop.
GA.	12	D	More jobs in government and wholesaling, fewer in lumber, transportation equipment.
HAWAII	3	R	Growth rate slowed slightly in nonmanufacturing; drop in food processing.
IDAHO	4	R	Mining strike and softness in lumber have pulled employment down.
ILL.	27	?	Steel is soft spot in nonfarm economy; farm income ahead of 1959.
IND.	13	?	Fresh layoffs in steel offset auto, building pickup; hog prices good.
IOWA	10	?	Farm receipts top 1959; electronics boosts employment; farm machinery sags.
KAN.	8	R	Employment pulled down by aircraft cutbacks; but a tremendous wheat crop.
KY.	10	R	Layoffs in appliance, auto, farm machinery plants — and even distilleries.
LA.	10	D	Oil employment off, but gains in government, trade, and construction.
ME.	5	R	Employment gains (metals, machinery, paper) offset drops (textiles, leather).
MD.	9	?	Government, services, trade boost employment; steel, aircraft are off.
MASS.	16	D	With government and trade leading, total employment up; textiles and shoes down.
MICH.	20	?	Unemployment below year ago, due to early auto model change, but still high.
MINN.	11	?	Jobs growing at slower rate; data-processing, farm machinery are among gainers.
MISS.	8	D	Employment off in construction, shipbuilding, lumber; cotton prices off.
MO.	13	?	Farm sluggishness leaves mark on trade, services. Steel, shoe employment down.
MONT.	4	?	Only government and finance gain as employment drops. Big losers: mining, oil.
NEB.	6	R	Wheat up, corn down. More jobs in government, construction; fewer in transportation.
NEV.	3	?	Employment sets record, led by gains in hotels, amusement and recreation places.
N.H.	4	R	Job gains in electrical products and job losses in shoes cancel out.
N.J.	16	?	Nonmanufacturing growth more than offsets drops in metals, electrical machinery.
N.M.	4	?	Employment increase smallest since 1954; construction, oil, research are soft.
N.Y.	45	?	Employment up almost to 1957, led by trade, government, services, finance.
N.C.	14	?	Nonmanufacturing pushes employment up; textiles and lumber down, tobacco up.
N.D.	4	R	Jobs cut in building, trade, government; wheat crop big, but receipts lag.
OHIO	25	?	Steel one of softest spots; business machines doing well; farm crops good.
OKLA.	8	?	Employment trails 1959; losses led by aircraft, construction, oil, services.
ORE.	6	?	Nonmanufacturing, electrical machinery strong; lumber, paper, textiles weak.
PA.	32	?	Unemployment up unseasonably because of dominant steel; crops good.
R.I.	4	D	Employment gains in machinery, jewelry, and silverware offset textile drop.
S.C.	8	?	Employment up slightly; new plants make up jobs lost in mechanization of old ones.
S.D.	4	R	Construction, services, trade, finance raise employment; farm receipts lag.
TENN.	11	?	Employment growth slowed; unemployment up. Soft spots: trade, construction.
TEXAS	24	?	Oil is major weak spot; aircraft off but electronics up; farm receipts down.
UTAH	4	R	Some softening in recent months, but missile employment picking up.
VT.	3	R	Total jobs off slightly, with drops in construction, textiles, paper, lumber.
VA.	12	?	Employment up, but at slower rate; gains in trade, government, construction.
WASH.	9	?	Jobs at record high despite losses in aircraft, lumber; heavy construction up.
W. VA.	8	?	Factory employment stable, but mining depressed. Trade also off; government up.
WIS.	12	?	Employment down in metals, machinery; autos picking up; dairy farms doing well.
WYO.	3	R	Retailing, services show strength; nonresidential construction does well.

setting these gains, there also are small declines in steel and a variety of other hard and softgoods. Farm receipts are running moderately ahead of 1959, virtually unaffected by the farm labor strikes.

• **Pennsylvania Outlook**—With more areas of "substantial and persistent" labor surplus than any other state—five—Pennsylvania has 7.4% of its labor force unemployed. As though that high level isn't enough, it represents an increase over August that runs counter to usual seasonal trends. Layoffs in coal mining and railroads built many of the unemployed into the state's economy—particularly in such areas as Altoona, Johnstown, Scranton, and Wilkes-Barre-Hazleton. More recently, the weakness in steel brought unemployment to 9.3% in Pittsburgh, 5.9% in Philadelphia.

In Pittsburgh, new claims for unemployment compensation have begun to dip—as have total claims—but they still are high. Even more people have had their work week cut. These, rather than the unemployed, are likely to feel the effect of a fourth-quarter pickup—if there is one.

Pittsburgh has been helped somewhat by stability in some other parts of its economy. There has been a pretty fair volume of heavy construction. The competition for contracts has been bitter, shaving contractors' profits but still putting men to work. Then Westinghouse has been operating on a plateau for months—albeit, a lower level than formerly as a result of reductions during the big dry spell on generator orders 18 months ago. Now the company is flooded with generator orders, assuring good production schedules a year or more into the future.

Typically of state capitals, Harrisburg has enjoyed better conditions. And the successful Pennsylvania Dutch farmers have kept Lancaster on an even keel. Although in the state's general farm picture such bright spots as good milk and egg prices showed up, the brightest spot was the apple crop. The color was good and, with a smaller crop, the prices high.

• **Illinois Picture**—Employment across Illinois was down from a year ago, but except for steel it is hard to find any dramatic examples. Take the farm machinery industry. In anticipation of slower sales, Deere & Co. began late last year to work down its employment; consequently, it could keep the number stable. But International Harvester built up inventories, last month had to notify workers it was shutting down operations in a number of plants.

Typical of the Corn Belt, Illinois cattle men are at the point in the cattle cycle where returns are lower than year ago because of lower prices than last year's, but hog raisers are at the point in the hog cycle where reduced marketings are getting them better prices. For cash grain farmers, there has been little change.

• **Ohio Ups and Downs**—Steel also is the biggest contributor to the unemployment rolls in Ohio, where the cutbacks are particularly felt in Cleveland, Youngstown, and Lorain. Business machines are giving the state a lift, on the other hand, in places such as Dayton. Cincinnati employment is holding fairly level; beneath the stability there are such gains as General Electric's recalling 300 workers for aircraft engines and such declines as a layoff of 125 at the Acme-Newport steel plant across the river in Newport, Ky. Toledo also is in reasonably good shape. In fact, some of its auto components plants, such as Doehler-Jarvis Div. of National Lead and Chevrolet transmission, are hiring workers off the street.

• **Texas Barometer**—The decline of the oil industry stands out in Texas. Aside from its indirect impact on the state, it has had a direct impact on employment in exploration, production, refining, the manufacture of equipment and pipe for the industry. Greater automation at refineries has aggravated the employment picture slightly, in places such as the Beaumont-Orange-Port Arthur area.

By contrast, the chemical industry has been growing in the Houston area, the pulp industry in East Texas, and electronics around Dallas where companies such as Texas Instruments continue their hiring. The aircraft industry in the Dallas-Fort Worth area, which took some hard socks two years ago, has fairly well leveled off. Virtually all the 16,000 laid-off aircraft workers have been absorbed; one-fourth moved away.

• **Michigan Weather**—The year-to-year comparisons for Michigan fall into the trap set by the early auto model changeover. In September, for instance, unemployment was 180,000 compared to 210,000 a year ago. Last year, unemployment dropped to 185,000 in October; this month's figures should run around 170,000. So many people have been unemployed for so long in the state that the economy has come to adjust itself to them. Business generally seems to be stable; nonmanufacturing employment has been growing slowly. And if car sales do well, improvement in manufacturing is quite likely, too.

III. Who Are the Unemployed?

Although the man working fewer hours is bound to feel the economic weather on Election Day, the one who doesn't have any work at all is bound to feel it even more. "Kennedy doesn't have any trouble convincing him that there's a recession," says a Nixon adviser. "This man feels it, and he's going to take it out on somebody—and we're it, because we are in."

Therefore, a glance at just who the unemployed are is revealing. During the recession and during the recovery, the people who were first to be laid off and last to be hired were the young—the ones with the least skill and seniority. At the same time, as mechanization took hold, the older men who were displaced found it harder to get new jobs.

However, there have been significant additions to these categories. In Los Angeles, some highly skilled workers can't find their niche because their skills are too specialized; as a company turns increasingly to precision production, for example, it wants a particular kind of machine operator—not just any machine operator who happens to be available.

Similarly, companies have been raising their standards, and now they want full-fledged engineers—not just the warm bodies that happened to have some engineering knowledge that was good enough a few years ago. In Houston, oil companies have laid off people right across the board—not just the unskilled. In Pittsburgh, there is speculation that the steel companies will start to work down their white-collar workers through attrition, though not layoffs, before long.

As for the unemployed and underemployed, there is little doubt that they are sensitive to the economic weather. Just how sensitive full-time, higher-salaried people are is something else. So long as they are unaware, they obviously cannot translate their impression of the economic weather into votes for—or against—either candidate.

• **Lack of Drive**—The picture varies from city to city, but generally BUSINESS WEEK finds that people sense a lack of drive in the economy—rather than any downturn. An economist in San Francisco notes that people are stepping up savings deposits, as they are likely to do when things tighten up. Newspapers in California may reflect the economic picture in the cities where they are published, but not the plight of a place such as San Diego. Cleveland papers pretty well ignore employment stories, leading many workers to believe things are worse than they are. Chicago papers are printing optimistic statements by businessmen. Philadelphia papers run candid headlines such as: "State unemployment rises in September, bucking annual trend."

• **Union News**—In Detroit, unions see that their members are kept abreast of economic changes through their union publications, but these may be somewhat superfluous. "A factory worker who has never been paid less than $2 an hour," says one observer, "thinks the world is going to pot when his kids get only $1.50 in a supermarket."

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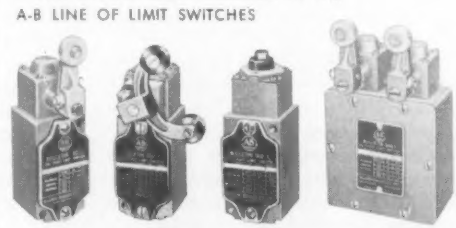

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Pressure on IUE

Union has been weakened by defection of Schenectady local, but it is continuing strike against GE.

The International Union of Electrical Workers won at least a temporary victory this midweek against dissident leaders. It gained approval of a continued strike against General Electric.

Nevertheless, developments during the week seemed to strengthen the possibilities of an early end of the three-week walkout.

• **Board Action**—IUE's strike against GE, shaky from the start, was undermined further last weekend when its largest GE local, at Schenectady, returned to work under a separate agreement with the company on truce terms.

Substantial numbers of IUE strikers were returning to jobs in other GE plants; in some, company operations were normal or near normal despite the strike.

IUE Pres. James B. Carey moved quickly to shore up the International's position. He called in the GE Conference Board for a meeting made necessary, he said, by "the betrayal of Leo Jandreau," business agent of Schenectady Local 301.

Other locals rallied behind Carey—some strongly, some uncertainly. With Schenectady abstaining, the GE Conference Board agreed unanimously to continue the contract fight.

• **What It Means**—In effect, the board gave Carey more time to negotiate with GE. It rejected company proposals of a truce that would maintain all terms of the expired GE-IUE contract except for a cost-of-living clause.

Although it indicated a continuing opposition to GE's terms it talked of a need to "face candidly and realistically the present situation."

This is the language of compromise—perhaps of settlement. Supporting it, the board in a surrender of its own authority empowered the Carey-led negotiating committee "in its judgment to conclude a settlement," by this weekend if it can. If it can't, the board will reconvene next midweek to consider a further course of action.

• **Other Negotiations**—Meanwhile, the United Electrical Workers—bargaining under a one-year contract extension—still appeared to be in general agreement with GE on terms of a new contract (BW—Oct.15'60,p31).

IUE continued negotiations with Westinghouse Electric, beyond an Oct. 15 deadline, with some rumblings of strike talk.

GEORGE CHAMPION takes over as chairman Jan. 1, sharing top leadership with . . .

DAVID ROCKEFELLER, who will be president and head the executive committee.

Chase Bank's New Team

New York's Chase Manhattan Bank, No. 1 commercial bank in the city and No. 2 in the nation, this week announced a management reorganization that calls for two executives to exercise "dual leadership."

This plan, approved by the bank's board of directors, effective Jan. 1, 1961, ended speculation over who would succeed John J. McCloy, who has been chairman of the Chase since 1953. George Champion, 56, will take over as chairman and David Rockefeller, 44, will be president and chairman of the executive committee.

Last year, the Chase, which has a retirement age of 65 for its executives, asked McCloy, then 65, to continue in office through 1960. In New York's rumor-rich financial community, it was expected that either Champion, the bank's president, or Rockefeller, its vice-chairman, would be chosen to succeed McCloy as the bank's top officer.

• **New Split of Duties**—Traditionally, the Chase's chairman is its chief executive and policymaker. Its president was in charge of bank operations, while the vice-chairman was in charge of planning.

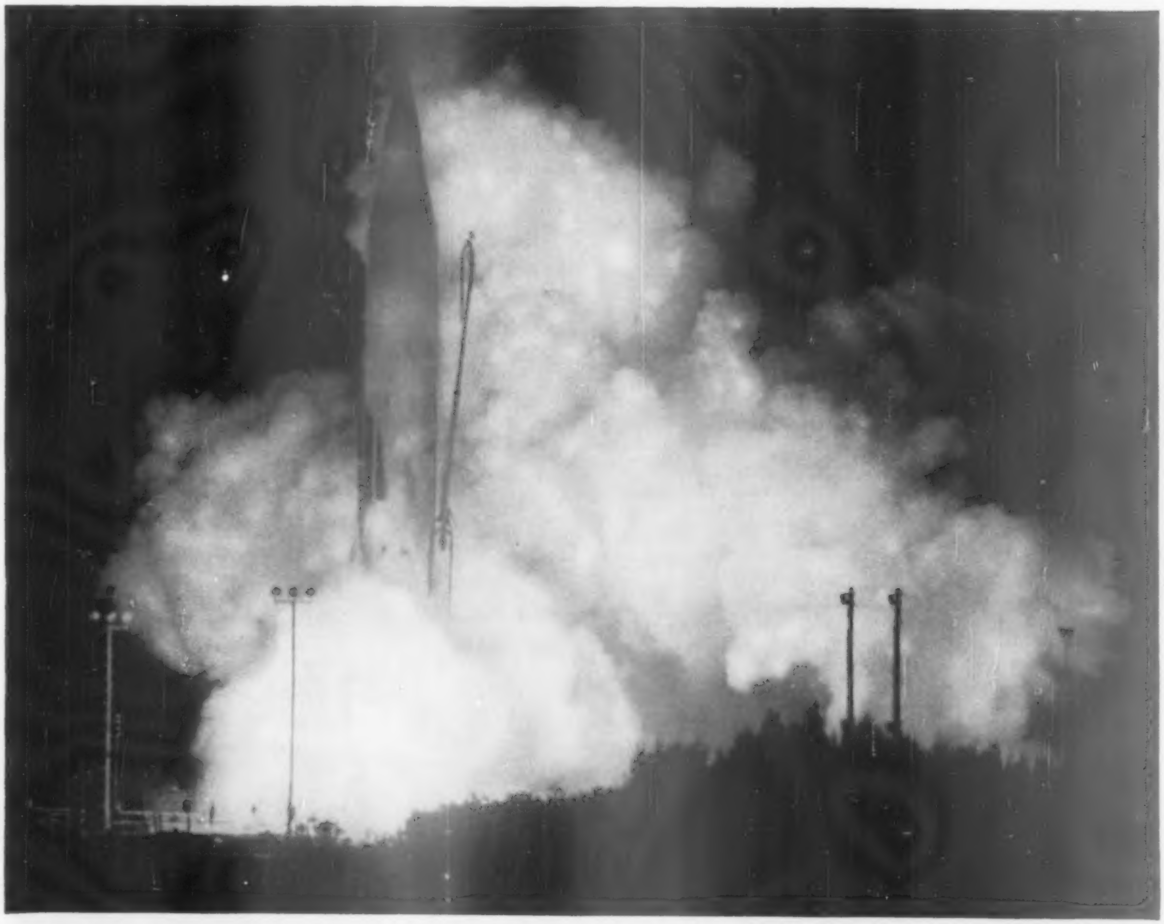
Under the new plan, Rochefeller and Champion will share these responsibilities. Lawrence C. Marshall, 56, who was president of the Bank of the Manhattan Co. when it merged with the Chase in 1955, was named vice-chairman.

This is obviously a compromise, giving each man special responsibility over the fields he knows best. Champion formerly headed Chase's national department, which supervises correspondent relationships and loans to banks and corporations, and he will continue to watch over this area. Rockefeller has been in charge of the bank's administrative and planning functions and has spearheaded its foreign expansion; he keeps these responsibilities. On over-all policy matters, they will act as a team.

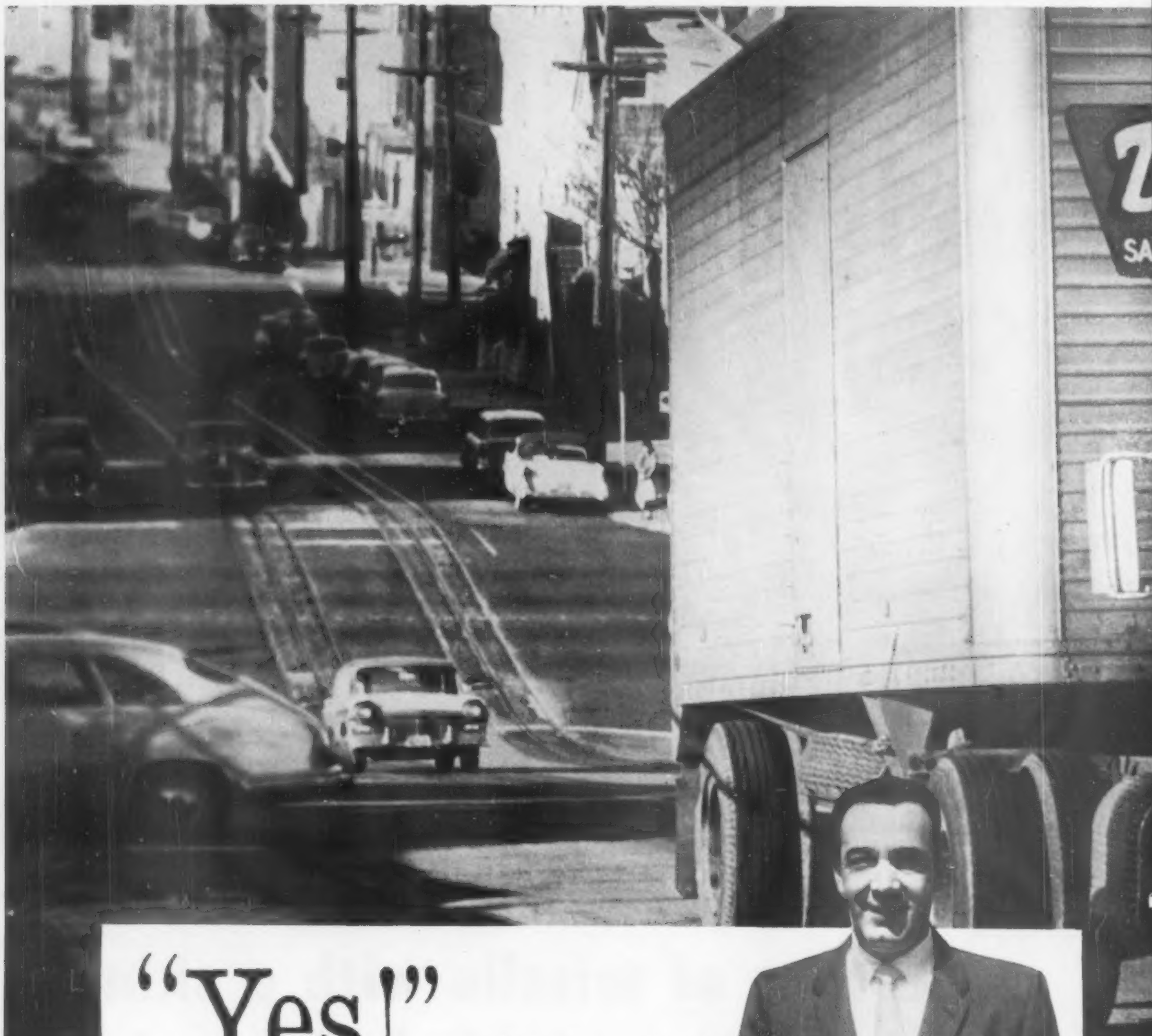
LAWRENCE C. MARSHALL will be vice-chairman, backstopping the two top men.

• **Still on Board**—McCloy will remain on the board of the Chase, where the retirement age is 72. Marshall will be elected to the board and will take over for Rockefeller or Champion when either is absent.

To replace Marshall as head of the bank's metropolitan department that supervises all the New York branches, the board named George A. Roeder, Jr., who was trained under Champion.



Record breaking Atlas missile billows flame and vapor as she launches 4¼-ton satellite into orbit. Constructed of Type 301 Nickel Stainless Steel, Atlas is built by Convair (Astronautics) Division of General Dynamics Corporation. *U.S. Air Force photo*



"Yes!" *says San Francisco's DiSalvo Trucking Lines...*

and here's why: One truck now does the work of two—and re-powering the old tractor with a Series 53 Diesel cut fuel, parts and maintenance costs $754 in less than twelve months. According to President Russ DiSalvo, doing without that extra tractor has also saved them $300 in taxes, license fees, insurance, etc.

Out-of-pocket savings add up to $1,054—capital investment and other savings come to a great deal more in DiSalvo Trucking's particular operation. You can see why President DiSalvo figures putting a new Diesel in an old truck is one of the smartest moves he ever made.

Do you own a gasoline-powered truck rated from

SERIES 53 AND 71 TRUCK MODELS of the

In Business

• • •

Coal Industry Wins ICC Approval On Rail Rate Cut to Eastern Utilities

The domestic coal industry scored a major victory over imported fuel oil when the Interstate Commerce Commission refused to upset a 50¢-per-ton rail freight rate reduction on coal hauled from Appalachian mines to large Eastern electric utilities.

Coal leaders feared that without the rate cut they would lose their lucrative utility accounts on the East Coast. The utilities, most of which can burn either coal or oil, are the largest domestic market for coal.

ICC has now set its seal on an earlier temporary approval of the cut, which means coal can be laid down at New York harbor for about $9.28 per ton. The move came after lengthy hearings at which oil jobbers argued that the freight rate cut was discriminatory. Foes of the cut are expected to appeal to the courts.

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U. S. Aluminum Producers Maintain Record 1960 Pace Despite Minor Sag

Primary aluminum production turned down slightly in August and September, but the industry wound up the first nine months of the year at 1,521,000 tons—about 60,000 tons ahead of the same period last year when all previous records were broken.

Helping to maintain the fast pace has been a rise in exports, particularly to Britain where each of the three largest American producers of the metal now has a fabricating affiliate. It appears that shipments to the United Kingdom in the seven months through August came to nearly 70,000 tons—more than total exports to all offshore areas in most recent years.

• • •

Eastern's Airliners Entitled to Carry Letter "B" in Name, CAB Aide Rules

After due consideration, a Civil Aeronautics Board examiner has handed down a 19-page recommendation favoring Eastern Air Lines in its dispute with Delta Air Lines over the letter "B." Now it's up to the full CAB to decide whether to go along with the examiner and let Eastern call its jets DC-8B, rather than just DC-8.

When Eastern began advertising its jets with the B, competing Delta cried no-fair. Delta said its own DC-8s were built virtually simultaneously with Eastern's and were in effect the same, but that Eastern's ads implied that its planes were better.

Eastern retorted that its planes were better, having later model engines with more thrust and speed.

Douglas Aircraft, maker of all the planes, said that it had never tacked the B onto Eastern's planes, but that they were indeed different and that it saw no reason why Eastern shouldn't say so to the public.

Said Chmn. Donald Douglas: "I told Eddie (Eastern's Chmn. Rickenbacker) that as far as I am concerned, you can call it an A, B, C, D, E, F, G, or X—or anything you want." CAB examiner Walter Ryan went along with that view.

Much of Capital Airlines top management, including Pres. George Baker, will be dropped if the CAB approves of the proposed merger of Capital and United Air Lines. United Pres. W. A. Patterson made that clear this week in a hearing before a CAB examiner.

Patterson said United "will not assume the obligation" of taking on any Capital officer who might be responsible for the precarious condition of the airline.

American Airlines and Eastern Air Lines, the carriers with the largest fleets of Lockheed Electras, have launched campaigns to "re-sell" the plane, whose loads have fallen off after five crashes.

American has made a special mailing to top customers, seeking, as a spokesman put it, "to get across the fact that the Electra is a safe airplane or we wouldn't be flying it." Eastern is furnishing its salesmen with "ammunition" for defending the plane.

• • •

CAB Opening Up More Frequencies To Private Users, Ending Five-Year Row

The Federal Communications Commission has finally begun to open up more frequencies above 890 megacycles to private microwave, a policy it first proposed in 1956. Among the biggest gainers will be major trucking companies, which will be able to get radio licenses.

The move came after FCC knocked down the last objection to the policy: AT&T's claim that the frequencies should be reserved for future space communications. Not so, said FCC; when the time comes, the necessary frequencies will be found, partly by doubling up of space and ground frequencies. The commission added that it didn't really know what the space needs will be.

Earlier, FCC had disposed of the common carriers' first objection—that they would be wrecked if private businesses were allowed to have their own communications.

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Business Briefs

Tennessee-Texas Oil Co., newly formed subsidiary of Tennessee Gas Transmission Co., paid the owners of the closely held Renwar Oil Corp. 800,000 shares of TGT common, valued at $13.4-million, for all Renwar assets, including $3.5-million cash.

The New Haven RR had current assets of $23.3-million and current liabilities of $37.9-million, according to the Aug. 31, 1960, balance sheet. The word "current" was inadvertently left out of a story on the railroad (BW—Oct.15'60,p36). The road's total assets as of Aug. 31 were $429,088,751.

In these days of the merchandising revolution, a package has to be a three-ringed circus . . . must protect the product, catch the eye, and make the sale. For sell-out performances . . .

TODAY'S PACKAGING SPECTACULARS BEGIN WITH DOW PLASTICS MATERIALS

"Spectacular . . . exciting wonder and admiration by unusual display," says Webster. Add the word "sales" and you've practically described today's most modern packages. Some of the nicest are on display here. Like so many of today's successful packages, they were created from Dow plastics materials.

The wide-ranging spectrum of Dow materials includes films and sheetings, rigid materials, and latex coatings for boxboard cartons. Together they offer the widest range of choice in the thermoplastics field. This wide choice is ably seconded by our depth of experience in the problems of materials selection and application.

This happy combination of materials and know-how is available to packagers and package-makers to help them produce spectacular results . . . in eye-catching appeal, product-keeping efficiency, in after-the-sale conveniences that make the customer come back for more. Shown here are some of today's best packages that began with the basics . . . Dow plastics materials.

Never before has flexible packaging done the complete job it is doing . . . for the manufacturer, for the retailer and for the consumer. Why? Because today's packaging films more than *wrap* a product. They protect . . . they display . . . they sell . . . and they retain their keeping qualities until the contents are used! From Dow comes a complete line of plastic films for every packaging need . . . sparkling *Saran Wrap**, the greatest food saver of them all . . . low-cost *Polyfilm*®, notable for its uniformity in a wide range of gauges, its easy machinability and its almost unlimited applications . . . and newest of all, crystal clear *Trycite*®, a breathing-type film, has proved ideal for economical pouches, bags, window envelopes and window cartons. Each packaging film brings with it specific qualifications that make it right for the job it has to do. And each is backed by the skill and experience of the Dow research and packaging staff . . . further assurance that a Dow plastic film could make your product a packaging "spectacular."

WASHINGTON OUTLOOK

WASHINGTON BUREAU
OCT. 22, 1960

A BUSINESS WEEK SERVICE

What industry is telling Washington about the business future:

No solid economic upturn is due until mid-1961. Until the third quarter of next year, the economy will continue to show most of its current symptoms of softness. But the rise, when it sets in, promises to be a sturdy one.

The bases for this estimate are reports, freshly drawn up by top management economic advisers in such basic industries as autos, steel, railroads, construction, rubber, chemicals. Their appraisals constituted a prelude to the final 1960 meeting, during the current weekend, of the Business Advisory Council of the Commerce Dept.

More zig-zagging in the gross national product is the prospect.

This year's third-quarter decline in GNP was the first real deviation from an upward course since the third quarter of 1957. (In a specialized situation, the 1959 steel strike brought on a dip for one quarter.)

A fourth-quarter recovery in the GNP figure is expected, finishing off 1960 on a somewhat sweeter note, due principally to a seasonal upturn in automobile production. Over-all, this year's GNP figure probably will average out, these business economists feel, at about $505-billion. This is not so good as generally had been hoped for at the year's beginning, but it is well above the 1959 average of $482.1-billion.

Modest declines in the first six months of 1961 are anticipated, prior to an upturn that should move at a smart pace. A consensus among the industry reports suggests an over-all 1961 GNP average of about $512-billion, and there is involved here an implied fourth-quarter pace of something like $525-billion—a robust figure.

Get set for some Presidential campaign reverberations. This is an inevitable result of the week's events, the principal one being, of course, the official confirmation that the GNP figure did, indeed, fall off in the quarter just concluded.

Sen. John F. Kennedy will sharpen his economic attack—the theme that a recession, if not already upon us, is just around the corner. Democrats have been lying in wait for the new GNP figure. In fact, during the past three weeks they had tried vainly to pry it loose in advance. When it was announced this week, it came at the routine time—neither early nor late.

What Kennedy and his top advisers see is a chance in the climactic phase of the Presidential race to force more public attention to domestic economic issues. This is where they think they are strongest.

—•—

A knockdown, dragout finish to the hard-fought Presidential race is in store. With little more than two weeks until Election Day, watch for Kennedy and Vice-Pres. Nixon to begin hitting at each other even harder.

Democratic optimism is extremely high, and it is reflected in this week's new Las Vegas betting odds which, for the first time, make Kennedy a clear choice among the bettors.

But neither candidate figures yet he has won. The real tipoff here is the man-killing non stop campaign schedules each has laid out for himself in the vital states: New York, Pennsylvania, California, Ohio, Michigan, Illinois, New Jersey (page 32). Both camps agree that, unless all the signs are wrong, this election is going to be won or lost in these states.

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
OCT. 22, 1960

Some random campaign notes:

Talk about shortening the Presidential campaign in future years has sprung up. Probably the only effective way to do it would be to hold the party nominating conventions closer to election time.

The talk stems from the fact that both Nixon and Kennedy are finding the 20-hour, dozen-speech day fairly commonplace. Each is a tense and nervous campaigner, and the physical strain is enormous. Pres. Eisenhower complained frequently about the pace in both his campaigns, but sleep came easily and quickly for him at the end of a tiring day. Neither Kennedy nor Nixon unwinds and falls asleep quickly.

The Eisenhower role in the campaign is being expanded steadily. The President is portrayed as angry at Kennedy's attacks on his administration. Nixon's camp expects the President to wind up making an all out partisan appeal for the Vice-President's election on grounds that his administration deserves a vote of public confidence.

Eisenhower has lent one of his key White House aides, Bryce N. Harlow, to the Nixon traveling entourage. Harlow doubles as a helper on speeches and as an expert on Congressional affairs of recent years. He is Eisenhower's chief Congressional liaison man.

The issue of a Negro in the Cabinet, injected into the campaign by GOP Vice-Presidential candidate Henry Cabot Lodge, distresses some well-placed Republicans here. Viewed in the kindliest light, most party strategists feel it was a tactical blunder. A few of them are furious at Lodge. They feel it contributed little to Nixon-Lodge strength among Negroes in the North and that it hurt in the South. In some places, it took newspaper play away from the Quemoy-Matsu uproar, a point on which most Republicans here thought Nixon was scoring heavily.

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Possible new landmark in labor-management relations was arrived at this week under the aegis of Labor Secy. James P. Mitchell.

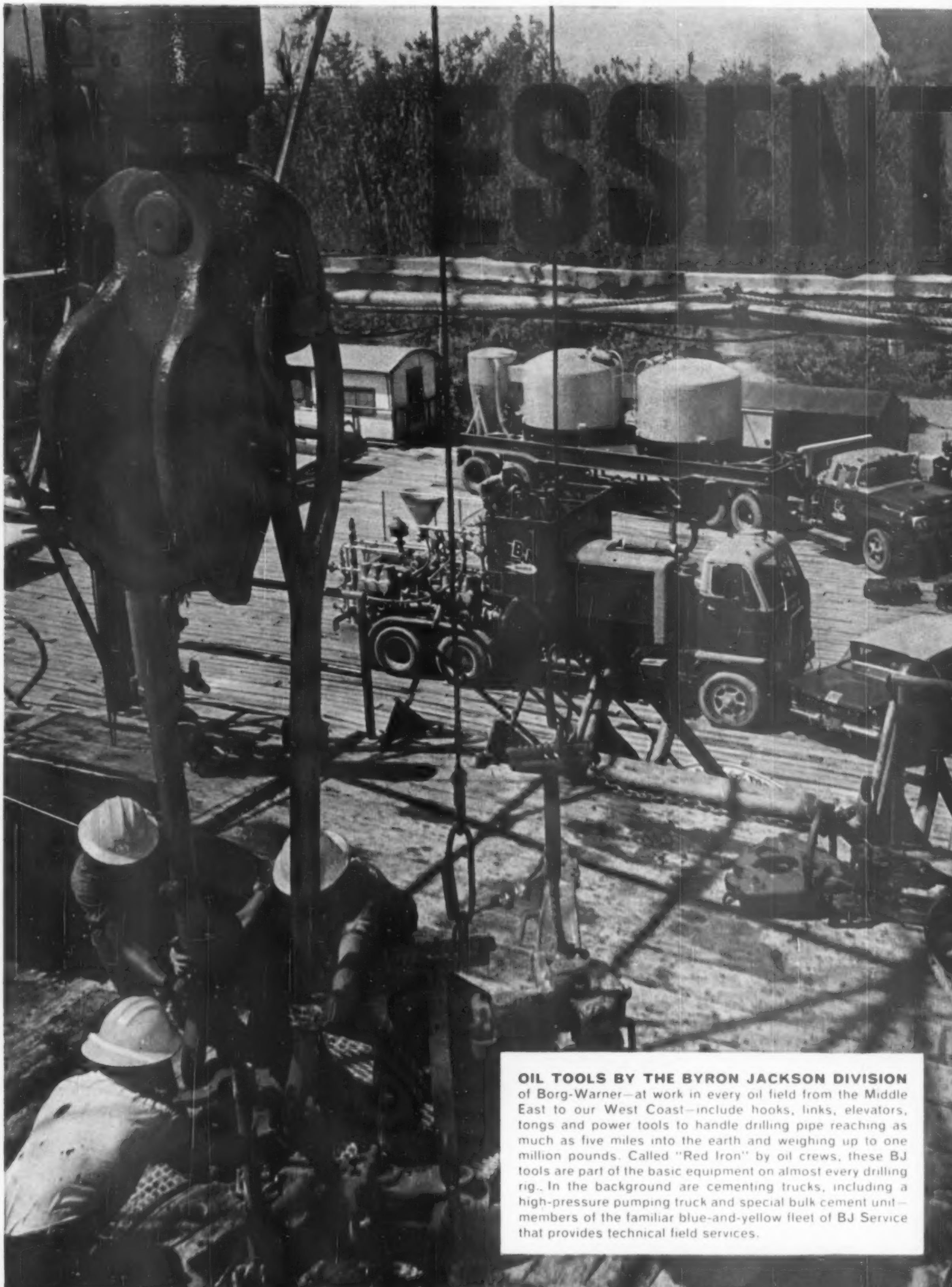
A Presidential fact-finding commission on railroad work rules, agreed to by rail management and operating unions (page 73), represents a potential breakthrough in a difficult area.

The weight of public opinion will be brought to bear ultimately in the long dispute between the railroads and the unions over what the management calls "featherbedding." But the larger hope is that this pioneering group's experience will point a way toward some reasonable and peaceful solution that could be applicable on a much broader scale in other industries where problems, while not identical, are similar.

Here's how the railroad panel is supposed to function:

It will be a 15-member tripartite panel, with five members from management, five from labor, and five from the public. The public representatives will be chosen by the White House.

By the spring of 1962, it will make public recommendations. These will not be binding on either party, but the hope is that they will carry sufficient weight with the public to force a settlement. The commission's recommendations, in any event, are to become the basis for a resumption of negotiations toward a settlement. And the commission itself will function as a mediator during these negotiations.



OIL TOOLS BY THE BYRON JACKSON DIVISION of Borg-Warner—at work in every oil field from the Middle East to our West Coast—include hooks, links, elevators, tongs and power tools to handle drilling pipe reaching as much as five miles into the earth and weighing up to one million pounds. Called "Red Iron" by oil crews, these BJ tools are part of the basic equipment on almost every drilling rig. In the background are cementing trucks, including a high-pressure pumping truck and special bulk cement unit—members of the familiar blue-and-yellow fleet of BJ Service that provides technical field services.

ALS

BY BORG-WARNER

Among the 7 Hats of Borg-Warner —a helmet to symbolize our contributions to the oil, steel and chemical industries

Without the tools and techniques of man, our country's huge reservoir of oil would remain untapped today. How valuable would a deposit of iron ore be without men and machines to make steel? Not even Nature herself can equal the qualities of such modern synthetic materials as plastics.

Partner to the growth and progress in oil, steel and chemicals are many of the divisions and subsidiary companies of Borg-Warner Corporation. B-W's Byron Jackson Division, for example, has long been the pacemaker in special tools required to drill oil wells which must probe miles below the earth's surface. BJ Service crews and equipment provide the cementing and treating techniques which keep these wells healthfully productive . . . and BJ centrifugal pumps supply the pulsing power for pipelines, refinery, chemical and metal-making processes.

Three B-W divisions—Ingersoll Steel, Calumet Steel and Franklin Steel—produce such quality specialty steels as stainless, alloy, tool and saw steels and bar mill products. Marbon Chemical Division is responsible for the creation of Cycolac®, the Borg-Warner plastic whose balance of properties make it truly unique, along with reinforcing resins and rubber-to-metal adhesives for the rubber industry and synthetic resins for the paint industry.

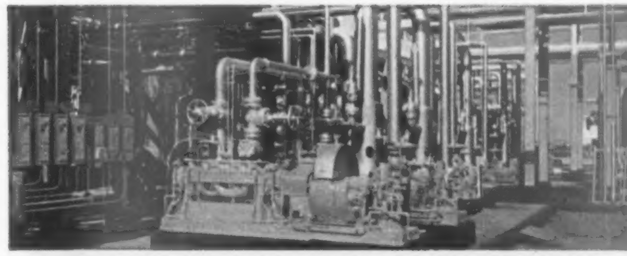
The years ahead promise a growing need for oil, steel and chemicals—and promise, too, even greater service to these industries by Borg-Warner.

The 7 Hats of Borg-Warner . . . (top) national defense; oil, steel and chemicals; (middle row) agriculture; industrial machinery; aviation; (bottom) the automotive industry; home equipment.

BORG-WARNER®

BETTER PRODUCTS THROUGH CREATIVE RESEARCH AND ENGINEERING

Borg-Warner Corporation • 200 South Michigan Avenue • Chicago 4, Illinois



PUMPS BUILT BY BYRON JACKSON are equally at home handling hot oil at 800° refinery temperatures (as shown above) or in feeding low-temperature liquid oxygen (−320° F.) to a modern steel furnace. Serving almost every phase of the oil, steel and chemical industries, BJ pumps transport essential fluids . . . provide water under pressure for cleaning, cooling and secondary oil recovery . . . push petroleum products through thousands of miles of pipeline "arteries."

STAINLESS STEEL, solid and clad—processed for exceptional forming abilities—is just one of the steels made by Ingersoll Steel. A modern specialty mill, Ingersoll is geared to meet customers' analysis, size, gauge, finish "specs"—exactly, economically.

STEEL BARS AND SHAPES rolled by Calumet and Franklin Steel Divisions meet exacting specifications of the construction, farm equipment, material handling and automotive industries. Other steel products: fence posts, tubing, special-use sections.

"BETTER IN MORE WAYS THAN ANY OTHER PLASTIC" sums up why hundreds of consumer and industrial products use Cycolac—the tough, hard, rigid ABS plastic developed and produced by B-W's Marbon Chemical Division. Familiar products easily and economically molded from colorful Cycolac pellets include (left to right) portable cooler, safety helmet, transistor radio case, portable mixer housing, telephone, typewriter housing, luggage.

WHAT BORG-WARNER MEANS TO YOU!

By making parts and materials that go into a great number and variety of finished products, Borg-Warner influences the activities of the American family. On a fall afternoon, helmets that protect football players might well be molded of Cycolac. Auto fuel that transports spectators to the site of the game is very likely refined with the help of Byron Jackson pumps. And, without a doubt, the car itself contains parts made by any one of many B-W divisions. Wherever you live, work, play or travel, Borg-Warner touches your life importantly every day.

OWENS-ILLINOIS
SKILL IN PLASTICS
TAKES MANY SHAPES
TO SERVE YOU

PLASTIC FITMENTS for PRESSURE PACKAGES

We don't make *all* of the plastic fitments for pressure packages. But we make a *lot* of them.

The fitments shown here illustrate the versatility of our equipment and people in making all sorts of things from plastic.

Nine plastic packaging plants . . . with more plants to come . . . are strategically located.

If you're contemplating plastics in your packaging, you will be wise to call on Owens-Illinois' long experience.

PLASTIC PACKAGING
AN (I) PRODUCT

Owens-Illinois
GENERAL OFFICES · TOLEDO 1, OHIO
PACIFIC COAST HEADQUARTERS · SAN FRANCISCO

MARKETING

Putting Loop Pedestrians Upstairs

Chicago stores are ready to build the first of a series of bridges that would move foot traffic to second story and help to lure customers downtown.

If city buildings can go skyward to ease ground-level congestion, why can't pedestrians?

Chicago is set to try it, at any rate.

Within the year, the Loop—the nickname for downtown Chicago, derived from the overhead structure along which elevated trains clatter one story above the street—should have another kind of elevated structure on view. This one is a covered walkway to carry shoppers between the second floors of two of the city's major department stores. The stores confront each other at State and Madison, a corner Chicagoans like to tout as the world's busiest (picture).

The span will be the first link in a system planned to make it possible eventually to stroll at second-story level for at least seven blocks, through stores, a savings and loan association, a big parking garage, and the famous Palmer House Hotel.

• **New Twist**—The system—variously described as the State Street Promenade or a "pedestrian freeway"—is still another twist in schemes to rejuvenate aging downtown retail districts and enable them to lure customers away from the youthful blandishments of outlying shopping centers.

Toledo and a few other cities have experimented with closing downtown streets to create a mall where shoppers can move freely. Kalamazoo's mall was successful enough to be made permanent, and Toledo's is continuing on a trial basis. Knoxville has a promenade (BW—Mar.19'60,p47).

• **Downtown Week**—As if to give extra point to the cities' concern, National Downtown Week is about to get rolling, from Oct. 23 to Oct. 29. Sponsored by downtown associations, retail groups, chambers of commerce, this affair has taken as its theme, "Downtown wins everybody's vote of approval." While local cities plan their own events, National Downtown Services, a consulting firm of New York, is providing promotional help.

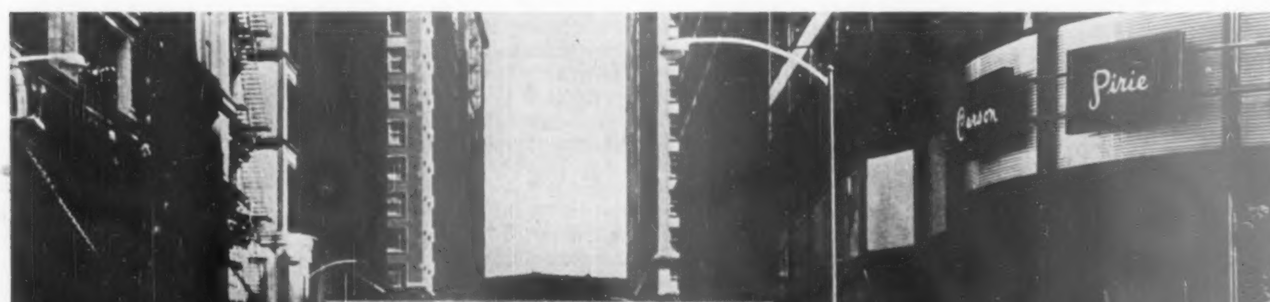
Some 200 cities and towns in the U.S. and Canada are participating. Various projects—from a temporary mall in Rapid City, S. D., and a permanent mall in Bradenton, Fla., to a tree-planting in Lawrence, Mass.—are timed to hail the occasion. But no community of Chicago's size has got so far off the ground—literally—with a program to separate pedestrians and vehicles.

• **State Street's Dilemma**—State Street could do with a boost to its retailing, even though its stores estimate they attract 250,000 to 300,000 persons a day and ring up an annual \$750-million in sales. Robert B. Johnson, managing director of the State Street Council, estimates that 10 years ago the street commanded 49% of the Chicago metropolitan area's retail sales dollars; now the share has eroded to 43%.

The total downtown cash take has been slipping, too. The Federal Reserve Bank of Chicago's index of average daily department store sales on State Street sagged almost 4% from 1952 to 1959; comparable statistics for the rest of the metropolitan area show a 42% climb. The trend is persisting this year, with State Street sales off 2% and outlying retailers up 1% for the first three quarters.

Of course, many of these outlying retailers are one and the same as the downtown giants, all of which have suburban branches. But State Street is still "the main tent," as Johnson puts it, and it's fighting to hold its own against the plaza-type of shopping center—there were at least 45 in a recent count by the Chicago Tribune.

• **Downtown "Center"**—The Chicago Plan Commission first recommended



PEDESTRIAN WALK sketched in photograph will link Wieboldt's (left) and Carson Pirie Scott, two of Chicago's largest shops

pedestrian bridges to link State Street stores in 1953. The idea was to span at least five streets separating stores on the east side of State and to open broad aisles or arcades through the buildings to create a continuous walkway.

This could ease traffic congestion by diverting many pedestrians from street level, where they have to vie for space with the almost 250,000 vehicles that enter Chicago's central area on a typical weekday. It would also simplify the flow of shoppers between stores, protect them from the weather, and tie State Street into something of an integrated center like its suburban rivals.

• **Long Incubation Period**—Nothing much happened to the proposal for the next seven years. The State Street Council kept pushing it, and in 1956, the Chicago Central Area Committee, formed to look after the welfare of the central district as a whole, joined the advocates. The city's 1958 central area development plan urged separation of pedestrians and vehicles, but it did not specifically mention the State Street walkway.

Meantime, other solutions were suggested and discarded or filed and forgotten. There was talk of closing State Street to traffic, but this seemed impractical for a north-south artery. Others wanted to exploit the State Street subway by expanding its underground passages to connect the whole area. Another plan called for building a double-decker canopy over the sidewalk, so that shoppers could stay dry and cross streets freely at the second-floor level.

• **Happy Ending**—One obstacle to the walkways was that Mandel Bros., third biggest of the department stores in sales, suffered deficits in seven of the last 10 years and wanted to sell out. Thus, it didn't want to invest in any fancy projects. Last August it brought to a happy ending negotiations with Wieboldt Stores, Inc., which has been flourishing in neighborhood locations. Early last month, a ceremony was held to replace Mandel's nameplate with Wieboldt's.

• **Idea Catches On**—Johnson of the State Street Council seized the occasion to mention to Wieboldt's Pres. James F. Tobin that he might like to fling a bridge across Madison Street to Carson Pirie Scott & Co., No. 2 among State Street retailers.

Tobin took interest at once. At about the same time, the Chicago Central Area Committee had bombarded State Street property owners with photos of the overhead walk between Denver's glittering new Hilton Hotel and May store. Action followed fast. Carson's and Wieboldt's engaged engineers to study the structural problems and announced plans to start construction in early spring, making next Labor Day the target for opening.

The bridge—presumably a prototype for those to follow—will be a 60-ft. span of steel and glass. In 1953, the cost was estimated at $50,000 for each span, but N. F. Armour, senior vice-president and general merchandise manager of Carson's, thinks this is far too low. Whatever the bill, it will be shared by the stores that the bridges link.

• **Exterior Problems**—Others along State Street are interested. But for the moment they are waiting to see how the project progresses. For one thing, there are engineering difficulties to untangle. A bridge south from Carson's to the Palmer House, for instance, would send shoppers sashaying smack into the hotel's splendiferous Empire Room. Between Goldblatt Bros. and Sears, Roebuck & Co., some way would have to be found to skirt the "L" tracks.

Marshall Field & Co., the titan in sales and prestige, has an elevator bank that might interfere with a connection from its men's store to Charles A. Stevens & Co., women's specialty shop. Home Federal Savings & Loan Assn. says a bridge wouldn't fit into its just-completed plans for a new State Street building, suggests an alternative using air rights over an alley to the rear.

• **Interior Changes**—The walkways would also require interior changes in the stores. Wieboldt's says second-floor entrances from parking facilities in its suburban Evanston and Oak Park units have made that level almost as important as the main floor for customer traffic. So merchandisers would probably display fast-selling soft-goods, such as women's sportswear, children's clothing, shoes, or special promotions, in the areas of the walks. This would not be a serious problem to Wieboldt's since it is redoing the old Mandel's from top to bottom anyway. For others, such changes might prove a greater wrench.

• **Ultimate Goal**—Ideally, the "pedestrian freeway" would stretch all the way from Marshall Field on the north to a 665-car city parking garage on the south. Ultimately, if planners have their way, it would also hook up with walks running west from State to the new city-county and federal buildings, both now in the design and financing stages. It might go all the way to Union Station.

"If every State Street store were to do this," says Armour of Carson's, "it would be a lot easier on shoppers and another tool to bring people downtown to shop—something we're all anxious to see." The fighting spirit of the campaign is evident in the way the State Street Council describes its constituency on every letterhead: "The world's first and greatest shopping center." END

THE ROLLS-ROYCE SILVER CLOUD II—$15,655 P.O.E.

Should every corporation buy its president a Rolls-Royce?

There is much to be said for it. It is a prudent investment. It enhances the public image of the company. And rank is entitled to its rewards.

A GREAT MANY of the Rolls-Royce and Bentley cars sold in England are sold to companies for the use of their top executives. "Take a Rolls-Royce or Bentley into partnership," is a saying well observed by British businessmen.

What makes the Rolls-Royce the best *executive* car in the world? Consider these facts:

Longest guarantee

The Rolls-Royce chassis is guaranteed for *three years*—the longest warranty by far of any motor car.

A good part of the cost can often be written off in five years or less. The car will then be in the infancy of its usefulness. You can sell it for a good price or drive it for many more years.

The Rolls-Royce obviates the extravagant practice of trading in cars frequently for later models. This costs you money each time a change is made. With the money that is wasted in a few such transactions, the company could have bought a Rolls-Royce.

No "planned obsolescence"

The owner of a Rolls-Royce is not threatened by annual style changes. Only an expert can tell whether it was bought yesterday or five years ago. The Rolls-Royce people do not practice a cynical and self-serving policy of "planned obsolescence."

Maintenance is minimal. With Rolls-Royce dealers throughout the country, service is no problem.

Your president will live longer

Send the Rolls-Royce to fetch your president from his home every morning; he will reach the office in better shape. During the day, emancipate him from waiting for taxis on street corners. At night, send him home in the Rolls-Royce—he can do his homework, or take a nap. Do these things, and your president will be a *better* president. He will also live longer.

A *safe* car

On bad roads, or in heavy traffic, the Rolls-Royce can be handled like a sports car. It will not normally be so driven. But such driving shows the great ability of the vehicle to cope with critical circumstances.

The brakes have no equal in the world. There are *three independent linkages*. Should one fail (an unlikely event), the others will keep the car under control. "We would never produce a car that would outperform its brakes," says a Rolls-Royce engineer.

Free from exhibitionism

An executive's car, like his office, undoubtedly influences public opinion toward his company. The Rolls-Royce implies taste, conservatism and a regard for quality. Of all luxury cars, it is the least exhibitionistic.

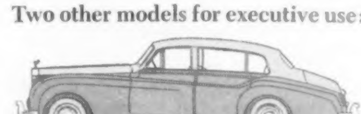
A source of contentment

There is satisfaction in owning such an exquisite piece of machinery. To handle a Rolls-Royce, to look at it, even to smell its leather, are pleasures which the executive of a successful company should not be denied.

Those presidents who feel diffident about driving a Rolls-Royce can be provided with a Bentley. It is exactly the same car, except for the radiator. It costs $300 less.

If you would like to try driving a Rolls-Royce or Bentley, write or telephone to one of the dealers listed on the opposite page, or to Rolls-Royce, Inc., 30 Rockefeller Plaza, New York 20, CIrcle 5-1144.

Two other models for executive use:

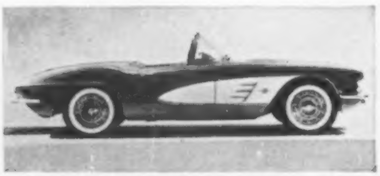


Long wheelbase Silver Cloud II with division, $19,185 P.O.E.

Phantom V, 7-passenger limousine, $25,895 P.O.E.

GENERAL MOTORS CORP.

CHEVROLET (standard) 6 & 8 cylinders
36 models of Biscayne, Belair, and Impala



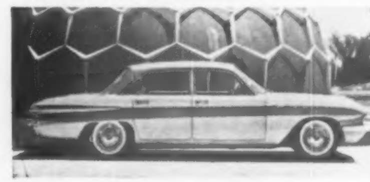
CORVETTE (sports) 8-cylinder model

CORVAIR (compact) 6 cylinders
8 models in 500 series, 700 series, 900 series, and 95

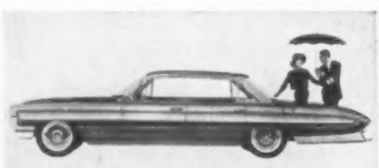
PONTIAC (standard) 8 cylinders
15 models in Catalina, Ventura, Star Chief, and Bonneville

TEMPEST (compact Pontiac) 4 cylinders
2 models: sedan, and Safari station wagon

BUICK (standard) 8 cylinders
15 models in LeSabre, Invicta, Electra, and Electra 225



SPECIAL (compact Buick) 8 cylinders
4 models: 4-door sedans and 4-door station wagons



OLDSMOBILE (standard) 8 cylinders
18 models in Dynamic 88, Super 88, and 98

F-85 (compact Oldsmobile) 8 cylinders
4 models: 4-door sedans and station wagons

CADILLAC (luxury) 8 cylinders
9 models in 62, 60 Special, and 75

AMERICAN MOTORS CORP.

STUDEBAKER-PACKARD CORP.

RAMBLER (compact) 6 & 8 cylinders
33 models in Rambler American, Classic, and Ambassador

LARK (compact) 6 & 8 cylinders
17 models in Lark and Lark Cruiser

HAWK (sports) 8 cylinders
1 model coupe

For Car Shoppers, Bewilderment

The many and varied 1961 automobiles spread across these pages are only a sample of the bewildering array Detroit is offering. Indeed, almost any dealer can offer a wide choice not only of body styles and colors but of basically different cars. A few years ago, the complaint was that all the products of Detroit were the same. That, at least, is an outdated charge.

"The market is up for grabs," says Ben D. Mills, general manager of the Lincoln-Mercury Div. and a vice-president of Ford Motor Co. No auto executive is too sure of any beliefs about the tastes of the new-car buyer. So he is taking no chances of letting any buyer get away.

This year has been a preliminary stage during which the auto executives, with new smaller cars and cars in unfamiliar price brackets, probed for sensitive spots in a suspicious consumer. The probing is over, and the 1961 cars

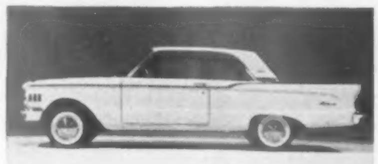
FORD MOTOR CO.

FORD (standard) 6 & 8 cylinders
32 models in Fairlane, Fairlane 500, Galaxie

FALCON (compact Ford) 6 cylinders
4 models of sedans and station wagons

THUNDERBIRD (sports) 8 cylinders
2 models: 2-door convertible and hardtop

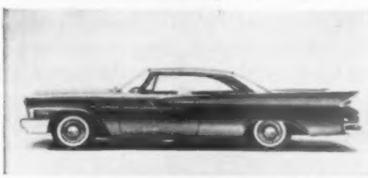
MERCURY (standard) 6 & 8 cylinders
19 models in Meteor 600, Meteor 800, Monterey



COMET (compact) 6 cylinders
4 models of sedans and station wagons

LINCOLN CONTINENTAL (luxury) 8 cylinders 2 models: 4-door sedan and 4-door convertible

CHRYSLER CORP.



CHRYSLER (standard) 8 cylinders
16 models in Newport, Windsor, New Yorker and 300G sports series

PLYMOUTH (standard) 6 & 8 cylinders
25 models in Savoy, Belvedere, and Fury

VALIANT (compact) 6 cylinders
6 models of sedans, hardtops, and station wagons in V100 and V200

DODGE (standard) 6 & 8 cylinders
29 models in Dart and Polara lines

LANCER (compact Dodge) 6 cylinders
6 models of sedans, hardtops, and station wagons in 170 and 770 series

DE SOTO (standard) 8 cylinders
2 models of hardtops

IMPERIAL (luxury) 8 cylinders
6 models in Custom, Crown, and LeBaron series

in All Price Classes

indicate one result: Anyone who drives is a prospect for nearly any factory.

• **Something for Anyone**—That's why in a Chevrolet dealer's showroom you'll find cars with four different wheelbases, over-all lengths from 180 to 209 in., seating capacities from two to nine, and engines with a half-dozen different horsepower ratings. Ford's range is about as wide, and Dodge dealers offer six series of cars with three different wheelbases and over-all lengths.

You can't dismiss this abundance and variety as just a way of breaking down the consumer's price resistance by shoving more cars into a lower price bracket (BW–Oct.15'60,p34). The auto industry has had to succumb to a revolt not only on prices but also on size. The revolt against grossness in price can't be divorced from the revolt against grossness in size.

Industry executives have finally persuaded themselves that if they chop

Frank Leeder, Trustee
Park Square Building Trust
Boston, Massachusetts
Building: Park Square Building.

REFINED TO A POINT OF PERFECTION... "Our enthusiasm for Operatorless Elevators started a long time ago. The recent 'Eye-Opener' demonstration of Westinghouse Elevators, however, brought me up-to-date on these remarkable elevators with a built-in electronic brain. The self-levelling feature, as well as Traffic Sentinel automatic door control, has been refined to a point of perfection. You are cordially invited to ride the elevators by Westinghouse in our modernized building and judge for yourself."

H. T. Freeman, President
Manufacturers Mutual Fire Insurance Co.
Providence, Rhode Island
Building: Turks Head Building.

ELEVATORS THAT ACTUALLY THINK . . . "The 'Pre-Investment Eye-Opener' is a comprehensive and revealing demonstration of the inner workings of a modern Westinghouse Elevator System. Here are elevators that actually think! They measure time, weigh elevator load for safety, know what traffic conditions exist—shift the system to the most efficient pattern of operation, *automatically*. I recommend this 30-minute demonstration to any building owner or manager."

These Decision-Making Executives Experienced the

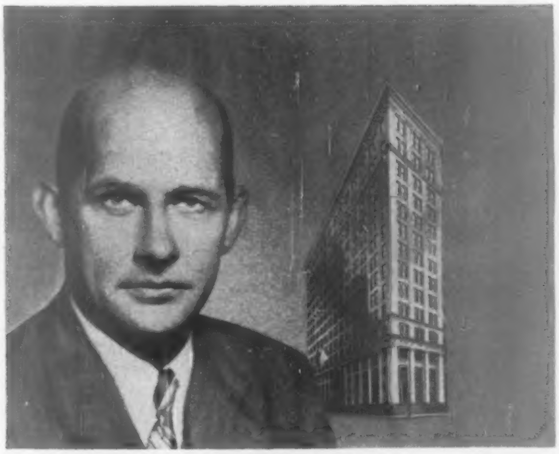
Westinghouse Elevator

"30-Minute Pre-investment

Eye-Opener"

H. Kingsley Durant, President
Hooper, Kimball & Williams
Boston, Massachusetts
Building: Batterymarch Building.

SYSTEM DEMONSTRATES ITS SUPERIORITY . . . "Smooth, prompt, time-saving elevator service to all floors and at all hours of the business day is rightly of primary concern to management of the Batterymarch Building. From every standpoint of efficient vertical transportation, the modern Westinghouse Selectomatic Automatic system demonstrated its superiority to our satisfaction, and we are glad to make it available to all who come and go in our building."



A. Lawrence Peirson, Jr., President
Massachusetts Bonding & Insurance Co.
Boston, Massachusetts
Building: Home Office, Massachusetts Bonding & Insurance Co.

THESE ELEVATORS NEVER TAKE VACATIONS . . . "Traffic-controlled, operatorless elevators have caught the fancy of building owners and managers throughout the U. S. A. There's a good reason for this—long range economy. The 30-minute demonstration showed how efficient a 100% automatic, electronic elevator system can be—without benefit of attendants. We have Westinghouse elevators in our modernized building—and they never take vacations or coffee breaks—or get married and quit!"

WESTINGHOUSE DEMONSTRATION ANSWERS YOUR IMPORTANT QUESTIONS ABOUT BENEFITS OF MODERN OPERATORLESS ELEVATORS

Westinghouse invites you to participate in a demonstration of the most advanced elevator system in the world. You must experience elevator performance to appreciate the remarkable results of Westinghouse engineering skills.

Here are elevators that "think" for themselves, *electronically* and *automatically*. They are as new as tomorrow—and more dependable than any elevator system previously devised. Tenants expect to find them in new buildings—and more and more managements of existing buildings specify them at modernization time.

Selecting an elevator system is a key decision which deserves your personal attention and approval. As a building owner or manager, it pays you well to investigate before you invest. Make arrangements to see this eye-opening, behind-the-scenes demonstration soon by calling the Westinghouse Elevator Division Sales Office in your city.

Westinghouse

J-98785AA

ELEVATORS AND ELECTRIC STAIRWAYS

YOU CAN BE SURE...IF IT'S Westinghouse

. . . each division, not just the company as a whole, needs to sell more cars these days . . .

(STORY on page 54)

inches off length and width they can make substantial cost savings, and the product even looks better. No nameplate and no price bracket has been safe from the effort to shrink, even the most expensive brand name.

There is one simple reason, of course, for everything that has been done to produce the plethora of 1961 models: Each division in a company, not just the company as a whole, needs to sell more cars. Some of the things that have been done illustrate just how severe competition has been in autoland the past few years and what imaginative responses it has produced.

I. By Any Other Name

Take, for instance, the new smaller cars from Buick, Oldsmobile, and Pontiac—the so-called medium-price divisions of General Motors.

The Buick Special, Olds F-85, and Pontiac Tempest are not luxury compacts as they have sometimes been called. Too many people equate "compact car" with "economy car"—even though American Motors, which first used "compact" to describe its cars, applies the word to its Ambassador, a $2,400-plus vehicle.

Advertising of the B-O-P cars puts their role and position in the auto market precisely in focus. Buick says the Special is "the best of both worlds." Oldsmobile says of the F-85: "every inch an Oldsmobile." Pontiac calls the Tempest "an entirely new personality . . . unmistakably Pontiac."

• **Sounding Out a Market**—Here's why the B-O-P divisions take that approach:

In the spring of 1957, General Motors had to decide what to do about the small car that Chevy's general manager E. N. Cole was ready to put into production (BW—Oct.8'60,p70). The decision wasn't anything as easy as a yes or no.

The Corvair, of course, was supposed to compete with the imports, which in that year would more than double their sales up to 206,000. But what kind of market area were the imports penetrating? People who wanted cheap transportation, who wanted smaller vehicles for either simplicity or handling, who wanted a "different" kind of car? How many people would, in 1959 and 1960, be counted in that part of the market? How many makes of cars could that part of the market support?

All of those questions bore on the Corvair decision. If the market to be served by the Corvair turned out to be static or restricted, and if the Corvair could be sustained only by taking customers from the standard Chevrolet, then Chevy would go hunting in the B-O-P pasture. If the main message of the import sales was that customers wanted small cars because they were small, then this had to be taken into account in all product planning. If low purchase price was the big thing with import buyers, that too would be a warning buzz to product planners.

• **One at a Time**—Those were the considerations faced by the then GM president, Harlow H. Curtice, over three years ago, when practically no one believed the market for small cars—domestic as well as imported—would ever break a million (this year it will be around 2-million).

Curtice ordered a go-ahead only for the Corvair, although other divisions had small car plans on paper. He had three reasons;

• Market analysts could see room for not more than one car each from the Big Three.

• The Corvair engineering was far ahead of the other plans.

• Even if tooling was ready on other small cars, there wasn't enough tooling capacity (or GM didn't want to pay the premium for a crash program) to have them ready for introduction at the same time as the Corvair.

• **New Prescription**—However, Curtice at that time ordered Buick, Olds, and Pontiac to speed up their own small car programs. Since his time at Buick in the 1930s, Curtice had demonstrated a knack of anticipating consumer desires. In the spring of 1957, he began to feel all cars were getting too big and too costly.

So his prescription to the B-O-P divisions was to design cars that would be smaller—and, consequently cheaper to build and to sell—but would still be "every inch an Oldsmobile," as that division now says of the F-85. The Special is not a compact car—it is a smaller Buick, as was the original Special that Curtice introduced in the 1930s to restore Buick's market position. And the Tempest is a smaller Pontiac, living up to the pledge made a year ago by division general manager S. E. Knudsen that "I will never bring out a car I can't call a Pontiac."

• **Three Hot Ones**—All three of the cars are about 189 in. long. That's the same as the Rambler, 6 in. shorter than the Comet, up to 8 in. longer than the Corvair, Falcon, and Valiant, and more than a foot longer than the Rambler American and Studebaker Lark. The B-O-P cars weigh about 2,700 lb.,

Many other fine plant sites, in similar fine communities, are available along lines of today's on-the-go N&W. Call H. P. Cotton, Assistant Vice President, Roanoke, Va.

NORFOLK & WESTERN
RAILWAY

Nation's Going-est Railroad

. . . Buick and Olds moved far out of the price range (and size) that many former customers had chosen . . .

(STORY on page 54)

which is topped among small cars only by the Rambler. The Special and the F-85 have aluminum V-8 engines of 155 hp.; the Tempest has an in-line four-cylinder engine (one-half of Pontiac's regular V-8) developing from 110 to 155 hp.

It may be indelicate to say so in these days of muted mention of performance, but they are "hot" cars. Their engineers really don't expect drivers to get much more than 20 miles to a gallon of gas, and probably less. Their sales managers, though, have very high hopes for plenty of mileage in the marketplace.

II. They're All Prospects

The chief target of the B-O-P smaller cars is all those former owners who have gotten away. Buick has about 4.25-million owners, Olds about 3.8-million, and Pontiac nearly 4-million.

When many of these people bought their cars, they paid what in recent years has been the price of the Chevrolet-class cars. Buick and Olds, even more than Pontiac, have since moved far out of the price range (and size) that many former customers had chosen.

In simplest terms, the new B-O-P cars permit their divisions to put a vehicle on the market for approximately the same number of dollars they charged five years ago (when the Special sold for $2,090 and Buick was the third-best-selling car)—$1,975 for Pontiac, $2,175 for Buick and Olds.

• **Different Aim**—This is quite different from what is going on in middle-line divisions of other companies. Mercury and Dodge are moving down in size and price into an entirely new market for them—they are aiming for people who didn't use to be their customers at all. Both still have one series of "big" cars at a higher price: the Mercury Monterey and the Dodge Polara. But this is just to keep a toe-hold in the middle-line market.

In thinking, price, and sales efforts, Mercury and Dodge are oriented toward competing with Chevrolet, Ford, Plymouth, Rambler, and Studebaker's Lark Cruiser.

This carries over into the smaller cars. Dodge's Lancer is just about the same length as the Special and F-85 (although on a wheelbase 6 in. shorter). However, its standard engine is the same 101-hp. plant used in Plymouth's Valiant, and its cheapest series is priced

. . . it makes more sense to keep five dealer bodies going than to let them be cut to two or three . . .

(STORY on page 54)

below Valiant's most expensive series. Dodge expects the Lancer to show the same low fuel consumption as the Valiant.

Mercury, too, wants the Comet to be an economy car, although a "luxury economy car." It is the longest of the economy cars, has a fine ride, low fuel consumption, and is priced down with the compacts—although, to stay in that price area for 1961, Comet had to make optional at extra cost some of the features such as rear-seat armrest that let it boast of being a "luxury" compact. Both the Lancer and the Comet have higher-horsepower engines as options.

• **Dealers' Role**—The pell-mell rush to make everyone a prospect for every division is changing long-held ideas on what each factory should do. Orderliness and logic, perhaps, would indicate that the auto industry take full advantage of the churning in the marketplace to realign its distribution. Obviously there are too many nameplates, and a few of them can't support the overhead of a separate divisional structure.

Realignment of this sort may come, but the reason it doesn't come suddenly and with a flourish is the very reason for the smaller cars among the middle-line nameplates: dealers.

Dealers are still a precious commodity in the auto industry, and while it may not make any difference to a GM stockholder today whether his $2 dividend derives from Chevrolet or from Oldsmobile profits, it may make a whale of a difference a few years from now. The B-O-P dealers always have been strong and, while no one knows what classes of cars will be selling five years from now, it obviously makes more sense to keep five dealer bodies going than to let them be cut by attrition to two or three.

That's why each middle-line division had to have its own small car, rather than let Chevrolet, for example, sell only small cars and the other divisions sell only standard vehicles. Every factory has to sell more cars not to fatten the general manager's bonus but to hold the dealers. That single overriding consideration is responsible for what on the surface seem to be unaccountable changes in product.

III. A New Ball Game

You see that policy expressed in minor ways all through the 1961 cars. De Soto, for instance, has been cut back to two

models—both hardtops—because any market acceptance it has is probably as a sportier Chrysler, and its dealers need something bigger and more expensive than the Plymouth and Valiant. Those dealers couldn't sell enough other models to support a full line of De Sotos, but Chrysler can't let them get completely out of touch with De Soto-class buyers.

• **Lincoln Continental**—But the best example of all is the 1961 Lincoln Continental.

Ever since Henry Ford bought the Lincoln Motor Co. in 1922 (from a group that included Henry M. Leland, founder of Cadillac), the Lincoln has been Ford Motor Co.'s big and prestigious competitor to Cadillac. In the past few years, though a fine automobile, it has been only big and prestigious. It certainly hasn't been much sales competition to GM's luxury vehicle—in the first eight months of 1960, the registrations were Cadillac, 98,382 and Lincoln, 14,573.

For 1961, the Lincoln-Mercury Div. has only one series of luxury cars, the Lincoln Continental. It is 212 in. long, compared with Cadillac's 222 in. It is 53½ in. high, compared with Cadillac's 56 in. It is roughly midway in size between the Thunderbird and the Cadillac. It isn't abusing the term too much to call the Lincoln Continental a new type of car.

Why this type of car was planned is explained by the colorfully articulate Ben Mills:

"I wasn't getting any place playing in Cadillac's ball game, so I have picked out a new field over there and am going over to start my own ball game and see if anybody will come to watch me."

• **The T-Bird**—Ford can claim proof of the value of starting a new ball game. There has hardly been a more thunderous success than the Thunderbird—unless it was the Falcon, which also was a new type of car. Mills hopes that his new Continental can reach for the same class of buyer as the T-Bird. The original idea of the 1961 Continental was "a six-passenger Thunderbird." It will be priced in the same general area.

Most comforting of all to Ford is what even a cursory examination of the sales figures shows for recent years. Ford Div. people insist the T-Bird has cut into Cadillac business, a claim that is derided at Cadillac on the simple basis that Cadillac sales have been on a rising curve for years.

With Cadillac doing so well, where have the T-Bird's 90,000-plus annual sales been coming from? From other factories' owners, of course. But those owners must have wanted a different type of luxury car because they already had a wide choice of sizes, appearances, and performances among Cadillac, Lincoln, and Imperial. **END**

PIEDMONT CAROLINAS

Where Wealth Awaits You

You have

GRANDFATHER'S CHANCE

WHO has not wished for his grandfather's chance to establish a business, to invest in young and vigorous enterprise, to buy real estate *sure* to multiply its value year after year?

You have that chance . . . , the opportunity to move your business here, and to make your investments grow into a solid fortune. But grandfather's risk has been cut 'way down.

For *he* had to pioneer. He gambled on what *might* happen in developing industries, enlarged markets, multiplying values. For you, the risks are discounted. The hard pioneering work has already been done.

State-wide road building has opened up whole sections of Piedmont Carolinas where previously the only work available was on backwoods farms. A great public service group has carried hydro-electric development into these sections, providing *industrial* employment for the abundant labor.

Business men have grasped the opportunities. Wealth during the last few years has increased *three times as fast* as in many older, more highly industrialized states. Now is the time to build with this section. Take advantage of the opportunities to set up *your* business in Piedmont Carolinas, to supply the industries already established here. Serve the rich markets that have been developed and that are growing far faster than they can at present be supplied locally.

Investigate. Get all the details that apply to you and your interests. *Our Industrial Department, Room 103, Mercantile Building, Charlotte, N. C., gladly places its facilities at your service. Write.*

Success that has been doubled and redoubled

Rich Markets

PIEDMONT CAROLINAS

Where Wealth Awaits You

DUKE POWER COMPANY

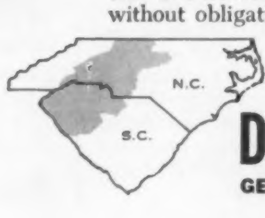
(OWNERS OF SOUTHERN POWER COMPANY, SOUTHERN PUBLIC UTILITIES COMPANY & ALLIED INTERESTS)

In 1927, this national advertisement made a bold promise to prospective industrial investors in the Piedmont Carolinas. That promise is today richly fulfilled in a Piedmont that leads the South in manufacturing output and family income.

Fulfillment brings an even greater promise. World leadership in three industries has created new markets in the Piedmont Carolinas. Power ahead of demand, a Piedmont asset for over fifty years, is readily available today for new industrial growth. Transportation by air and rail, and by some of America's finest roads, brings the Piedmont Carolinas within overnight reach of the East's top markets, the Great Lakes, and especially the Southeast —fastest growing consumer market in the nation.

A rare combination of resources and resourcefulness, here barely indicated, suggests significant new location advantages.

The Piedmont Carolinas renews its promise for another great growth era. For information specific to your industry, in confidence, entirely without obligation, write our Industrial Development Department.



DUKE POWER COMPANY

GENERAL OFFICES: CHARLOTTE, NORTH CAROLINA

In Marketing

• • •

U. S. Manufacturers Busy Turning Out Japanese-Designed Winkie Dolls

In a switch on the usual routine, American manufacturers are busily producing exact duplicates of a Japanese-originated toy. The Japanese-designed Winkie Doll, which looks like a Martian teddy bear, may become an American fad in the same wildfire way that it swept to popularity in Japan (BW—Sep.3'60,p26).

Firestone Tire & Rubber, a major supplier of the Winkie's black vinyl skin, reports production already shooting up toward the million mark. It says the doll retails for around 99¢ in such outlets as drug, department, and variety stores, bus terminals, and auto supply chains. Many retailers are stressing the "Made in U.S.A." theme in their displays.

• • •

Sales of Laundry and Kitchen Appliances In '60 Seen at Only 6% Below Banner '59

The appliance industry—at least some segments of it—will come out of 1960 with a pretty fair showing. This is the view of H. F. Lehman, General Motors vice-president and general manager of Frigidaire Div. By his count, 1960 sales of kitchen and laundry appliances for the industry will run only 6% below 1959's. And 1959 was a banner year, he emphasized.

Looking ahead, he estimates that 1961 sales will be "about comparable" with 1960. Prices, he said, will average about the same.

The occasion was the showing in New York of the 1961 Frigidaire lines. **Lehman made this the occasion for a strong defense for the annual model changes in appliances as a stimulus to improved product and to sales.** The "calendar deadline" generates pressure and excitement, and the deadline even brings about economies by focusing efforts on a known target, he said.

He also answered critics of quality of product with these statistics: Service calls on 1960 Frigidaire refrigerators were 61% below the calls on comparable 1948 models. On electric ranges, service calls have dropped 28%; on automatic washers, 76%.

• • •

More Department and Specialty Stores Are Turning to TV to Sell Their Wares

More retailers are using television, once almost the private advertising medium for product manufacturers, according to a special report by the National Retail Merchants Assn.

Since 1959, **the number of department and specialty stores using TV has jumped from 55 in 1955 to 94 in 1960, with 8% of these spending more than 20% of their total promotional budget on their TV programs.**

Most favored programing: Local personality and news programs, with advertising concentrating on single items.

• • •

Spike Heels Are Kicking Up Trouble For Boeing 707, Linoleum Makers

The mighty Boeing 707 jetliner has been routed. The victor: milady and her spike heels.

Boeing has taken its defeat in stride. It is coming out with a new floor for its 707's.

Before the spike, floors were of aluminum honeycomb panels. But **the miniscule ¼-in. heel proved deadly. Its jabs broke down the honeycomb edges just below the contact surface, punched dimples in the panel's upper surface.** The structural test engineer had to come up with a new floor.

Boeing is only the latest sufferer from the spikes. The **National Assn. of Shoe Manufacturers admits freely it has been getting kicks ever since the tiny spike heel took over several years ago.** Linoleum, carpet, oak floors, terrazzo—nothing appears to escape punishment. The issue resounded in the corridors of the U.S. Senate. The Senate laid down carpet to protect its pock-marked linoleum. Now the carpet is giving out.

Armstrong Cork Co. has prepared a treatise to explain. **Get a 110-lb. gal on a spike heel, and with each stride she develops the impact of an elephant.**

Most companies take the problem philosophically. They shrug, "It's the fashion. What can we do?" A spokesman for Congoleum-Nairn says the heels have made it necessary for the company to replace linoleum for some irate customers.

Shoe manufacturers hold out a gleam of hope. Some of the new imported shoe lines have heels four times as broad at the top as the spike.

• • •

Automatic Changers That Accept Bills But Spurn Fakes Installed by Banks

Money-changing machines that automatically identify and accept paper money of more than one denomination are going to work for two big St. Louis banks: First National Bank in St. Louis and Bank of St. Louis.

The electronic change-maker is a variant of the merchandiser displayed by Macy's-New York (BW—May21 '60,p185). National Rejectors, subsidiary of Universal Match Corp. **which makes the device, says it validates and accepts genuine U. S. $1 and $5 bills, rejects counterfeit or foreign currency.**

In addition, John L. Wilson, president, Universal Match, said this week that two department stores—unnamed—would install the change-making merchandisers.

Meanwhile, three Denver meat-packing executives have formed a new corporation, Grocerette Vending Machines, to make and distribute an automatic coin-operated grocery dispenser. Some 15 of the dispensers are already installed in Long Beach, Calif., on test, with more ready for Denver supermarkets

AFL-CIO PLANE trailing a message urging New Yorkers to vote flies above East and West Side Highways during the rush hours.

WOMEN hand out "register to vote" cards.

PHONE calls stress registration deadline.

LABOR

Unions Driving Hard To Get Out the Vote

If the Democrats win the Presidency Nov. 8, organized labor will claim that it played a major role in the victory. In New York and other industrial cities in 14 key states, unions are working hard to get out a record vote. They are using both old techniques and new approaches (pictures) in their campaign.

• **Labor's Gamble**—AFL-CIO is now winding up its most intensive registration campaign. Reports filtering into the federation's offices in Washington indicate that this first phase of labor's 1960 political drive was a marked success. Record registrations are reported.

AFL-CIO—and the Democrats—see this as an encouraging sign of votes to come. Labor, of course, is firmly behind the Democrats. Although it is limited in the active support that it can give the party, labor thinks that the "nonpartisan" campaigning for registrations is a good gamble. Of every three voters that labor's political workers get out to the polls, two probably will vote for the Democrats.

• **Generally True**—This isn't always true. It wouldn't have been in the two Eisenhower election years. But it has been true frequently enough in the past to make a broad registration campaign a good bet for labor.

Even so, AFL-CIO committees have been alert to possibilities that would make a good bet almost a cinch bet. For instance, "nonpartisan" campaign for registrations concentrated in normally Democratic districts and among union members and minority races obviously builds up the Democratic vote; other districts can be ignored.

• **Coordination**—AFL-CIO's executive council mapped plans for a nationwide campaign for registrations at a meeting in August. George Meany, president of the federation, took personal command.

There were two objectives:

• Federal laws restrict what unions can do politically; a new approach—the "nonpartisan" campaign for a big vote—was designed to get some much-needed union funds into labor's political action, on a legal basis.

• Democratic campaign strategists were worried about a record number of "stay at homes" on Election Day hurting the chances of nominees Sen. John Kennedy and Sen. Lyndon B. Johnson; labor undertook to get voters out.

The AFL-CIO drive was coordinated with that of Democratic organizations in many states and communities—and civic and Republican registration campaigns in some of them. Everywhere, volunteer workers were reminded constantly of this: Get your people to register and to vote—but don't ever suggest how they are to vote.

• **Why Not**—Corporations and labor organizations are forbidden under the Taft-Hartley Act from any contribution or expenditure in connection with an election to federal office. Violators are subject to fines of up to $5,000 for corporations or unions, up to $1,000 and a year in jail for individuals.

This bar applies to union dues money. Several Teamsters officials in St. Louis are on trial now on charges of an illegal use of union money for political purposes (BW—Oct.8'60,p113). Labor's caution in any political action involving dues money directly or indirectly is to avoid similar trouble.

Because the registration-vote campaign is technically "nonpartisan" in its activities, union funds were contributed to it that could not go to AFL-CIO's political arm, the Committee for Political Education. The money was doled out by AFL-CIO "wherever there was a legitimate request," according to Carl McPeak, working under Meany as director of the registration campaign.

For instance, $10,500 was allocated

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to cities in Missouri. Kansas City received $5,000; St. Louis, $4,000; Joplin, $1,000; and St. Joseph, $500. Michigan cities split up $33,000. New York City and Chicago got $20,000 each, Philadelphia $10,000.

Funds were used largely for office rent, telephones in batteries, and radio and television spot announcements calling registration deadlines to public attention. Some of the money was used for gasoline in cars to take people to registration offices, or for babysitters to mind the children while mothers were registering. There were other uses: loudspeaker trucks, an airplane in New York City with a register-and-vote sign, floats, mobile registration trailers, and the like.

• **Techniques**—Manpower was at least as important as money. McPeak, a veteran AFL-CIO organizer, called on 44 top-notch organizers for help. With Meany's O.K., he assigned them to work in their areas—exclusively, for the duration—on the drive. Many federation affiliates also put organizers or staff people full-time into the campaign.

"Citizens Committees" were formed, with paid staff workers and volunteers.

In St. Louis, 407 unionists pitched in for the campaign. In one day, they registered 85,077 persons. Volunteer workers were mustered elsewhere in similar large numbers—reinforced in many places by wives of union members, helping out for a few hours or days or the entire campaign. "Saturation" campaigning in large industrial areas for 12 days at a $12,000 cost boosted registrations in Allegheny County (Pittsburgh) to 862,397—with a "paper" net gain of 43,490 Democrats and 29,724 Republicans. Detroit went over one million for the first time. Registrations increased by 626,000 in five target counties in California.

Over-all in areas where AFL-CIO concentrated its campaigning, figures show 650,000 new registrations in Pennsylvania—347,000 Democrats and 302,000 Republicans; in Ohio, Cayuga County registrations are up 55,000 and in Cincinnati 20,000, with "healthy" increases in Columbus, Dayton, and Akron; in Minnesota, Minneapolis is up 80,000 and St. Paul 13,000; and so on down the state lines.

• **How Much Credit?**—AFL-CIO takes credit for only a part of the gains—25% to 30% in Pittsburgh and Philadelphia, for example. But the federation's effort has been its biggest political effort yet from a standpoint of manpower and money.

The new job it faces is to get out the vote. As McPeak says, "There's no use fooling ourselves—or anybody. Unless the people who have registered go to the polls, registrations are just window-dressing; they won't mean a thing."

COPE, which relies entirely on voluntary contributions from unionists for its funds, will probably take over on Election Day. The McPeak committee expects to have money left from its $500,000 fund, but it is wary of the big risk in trying to use it to get voters to the polls; it would be hard to maintain a nonpartisan record. McPeak's volunteers will be on the job—but not the money that has been behind them so far.

Up to now, COPE's collections have been lagging. As usual, this year it asked for a dollar contribution from each of AFL-CIO's more than 13-million affiliated unionists. It made clear that it would be happy to get even a fourth of the amount it sought—or something over $3-million. It's supposed to be way short of even that.

On Election Day, COPE plans to make up for money by mobilized manpower. END

In Labor

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Railroads and Five Unions Agree On Study of Disputed Work Rules

Threats of a railroad strike over controversial work rules questions ended this week as carriers and five operating unions agreed to submit their dispute to a 15-man study commission. **The agreement in a 14-hour negotiating session was a significant victory for Labor Secy. James P. Mitchell,** peacemaker in the "featherbedding" argument (BW–Oct.8'60,p119).

With Mitchell sitting in, the parties broke a deadlock over details of a factfinding plan. They agreed:

• All work rules questions will be referred to a study commission of five representatives each of management, the unions, and the public. Initially, the carriers said one issue—their demand for the elimination of diesel engine firemen—would have to be dealt with separately.

• The study committee will begin work on or before Jan. 15 and will report to the parties in no more than 11 months.

• The factfinders' recommendations will not be binding.

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Illinois AFL-CIO Will Urge Locals To Press for Severance Pay Clauses

Merged AFL-CIO in Illinois—a federation of 1.1-million unionists—outlined a strong economic program at its third annual convention in Springfield last week. However, the organization placed just as much stress on political action on a year-round basis as a "must" for labor in the state.

The Illinois State Federation of Labor & Congress of Industrial Organizations will urge all locals in the state to press for severance pay in their contracts. About a fourth of all Illinois unionists are covered by plans now.

The convention stressed that in times of automation and plant and department shifts or closings, severance pay serves two functions:

• It eases the loss of earnings and the costs of finding a new job, helps pay moving expenses if the employee moves, and so forth.

• It gives employers more "financial incentive to keep workers on the payroll."

The convention also urged the reduction of the retirement age under Social Security to 60 years for men, 55 for women.

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Producer Cancels Overseas Film Plans Because of Rise in Foreign Labor Costs

American International Pictures, an independent movie producer, has dropped plans to film five big-budget pictures abroad. They will be filmed in this country, mostly in Hollywood. This is a sharp reversal of past policy and is against a trend to moviemaking abroad.

The company said its decision was prompted by "the doubling of labor costs abroad and the lack of good technicians" there. Now, say AIP's James H. Nicholson and Samuel Z. Arkoff, it's about as cheap to shoot a film in the United States, and the technical quality of the product is likely to be far superior.

Hollywood movie unions, particularly the International Assn. of Theatrical Stage Employees, have been attempting to block what they term "runaway foreign production," the trend to make movies and TV films abroad to escape U.S. union costs. Boycott plans recently considered were dropped at least temporarily.

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U.S. Supreme Court Agrees to Decide If Fair Labor Law Covers Co-op Members

The U.S. Supreme Court agreed to hear one labor case and turned down a second this week.

In the first, the court agreed to decide whether the federal Fair Labor Standards Act applies to 200 Maine and Tennessee women who knit children's wear at home for sale by a cooperative. **The cooperative,** Whitaker House, Inc., **claims that, as "member-producers"** engaged **in "profit-sharing," the women are exempt from the minimum wage-maximum hour provisions of the law.**

Labor Secy. James P. Mitchell contends that the women are "employees," paid on a piece-rate basis, and that the cooperative was set up with the express purpose of evading FLSA regulations. Two lower court decisions have favored Whitaker House.

In the second case, **the court let stand an appeals court ruling permitting a federal district court to enjoin picketing without prior investigation by the National Labor Relations Board.** A Chicago Hod Carriers local had asked for a review on the ground that this procedure violated the Taft-Hartley Act.

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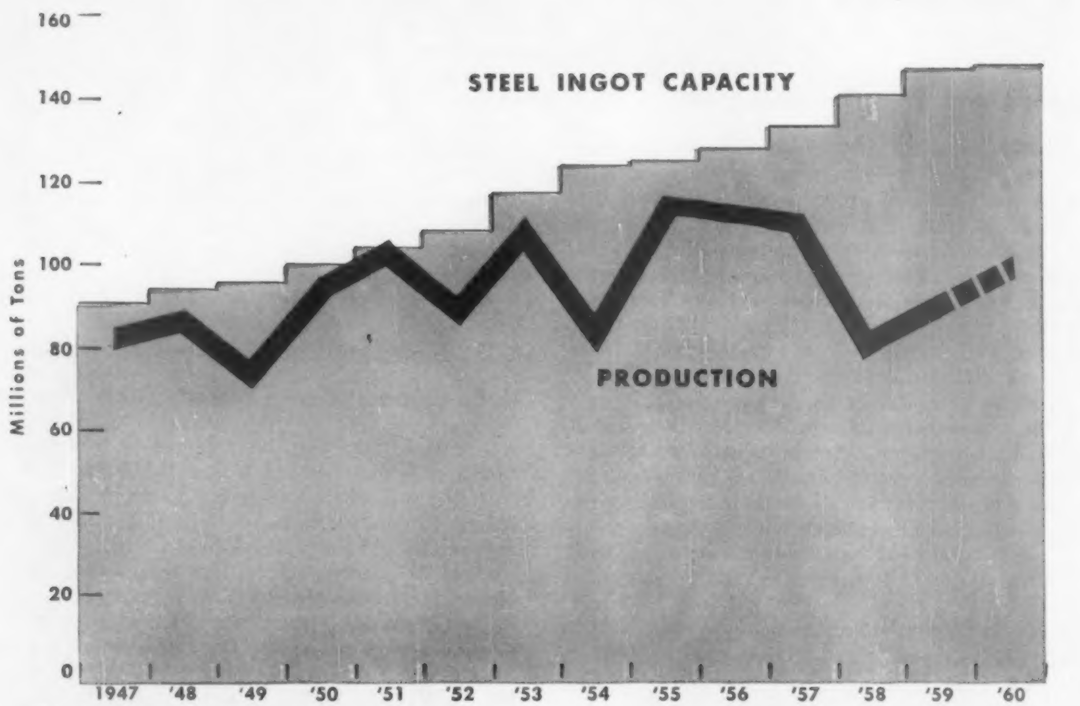
Some Progress in Long-Range Planning Reported by Kaiser Steel-USW Group

The United Steelworkers-Kaiser Steel Corp. long-range planning committee has made "some further progress" towards its goal of finding a way for an equitable sharing of future income gains between employees, shareholders, customers, and the public. But a spokesman concedes that **the committee still has a long way to go.**

The tripartite committee with Dr. George W. Taylor of the University of Pennsylvania as chairman met in New York earlier this month to review work of a number of subcommittees. The splinter groups of the nine-man committee will continue to meet regularly on specific questions under consideration; the entire committee will meet again before the end of the year.

Initially, the committee hoped to make recommendations this year. It no longer expects to. Kaiser employees got a deferred wage increase that took the time pressure off committeemen studying alternative sharing plans.



Steel's Future Points Two Ways

Basic change in its position is favorable for industry and its customers — but its next two years will be full of tough problems.

The chart will startle businessmen who have been worried by the pedestrian 52% or so of capacity at which the steel industry has been ambling along since midyear.

Despite that current low operating rate, the chart shows, the industry's output is expected to reach a respectable 102-million tons of steel this year.

So, if you're wondering whether steel's position in the U. S. economy has changed fundamentally in the last two turbulent years, the answer is—yes, it has indeed.

As to how it has changed, the apparent paradox pointed up by the chart again gives a clue. And the change is distinctly for the better, both for steel and for its customers.

Does that mean that steel's next two years will be rosy? Indeed, it does not. They look, in some ways, tougher than a year in jail. But they won't be so tough as they would have been had steel not finally completed the capacity-building program it started about Aug. 7, 1945.

I. Pick Your Angle

The sense you make out of that contradictory lineup depends on your viewpoint. If your interest in steel is strictly short-term, you won't find very much that's rosy in steel's immediate future. If you take a more fundamental view, the plusses add up about like this:

• Steel capacity, both for ingot and product, is far enough ahead even of peak demand that there won't be any more of the panic ordering that frequently whipsawed steel markets since the war.

• The customers are wholly aware of this, as their buying patterns of the last two quarters make plain.

• The grinding inventory draw-down that these changes brought about will be complete by yearend.

• And in both labor and prices, the threats to steel's stability are muzzled —for 21 months against strikes, and at least for the near-term future against price increases.

All this comes about simultaneously this quarter for the first time in 15 years. What's good about it is that for the first time since 1940, the industry is back in control of its own market. That's why the fundamental changes are for the better, long-term, despite the tough problems steel faces in the next two years in battling against competitive materials, imports, and an earnings squeeze.

II. Too Little, Too Much

As was true with almost every industry, steel came out of the war with too little capacity—about 4.5% of which it promptly scrapped. That imposed a stern expansion-modernization task.

In those days, of course, everybody was expanding. The result, for an industry as fundamental as steel, was a boom that fed on itself—and that raised steel's expansion requirements faster than capacity could be added.

A Korean War boom in 1951 and a capital goods boom in 1955 just repeated the cycle. It was 1957 before steel had the 15% reserve capacity for ingots that is its preferred operating position, and 1959 before it reached its traditional 25% reserve position.

• **Product Jams**—Ingot capacity, though, is only half the equation. Quite a

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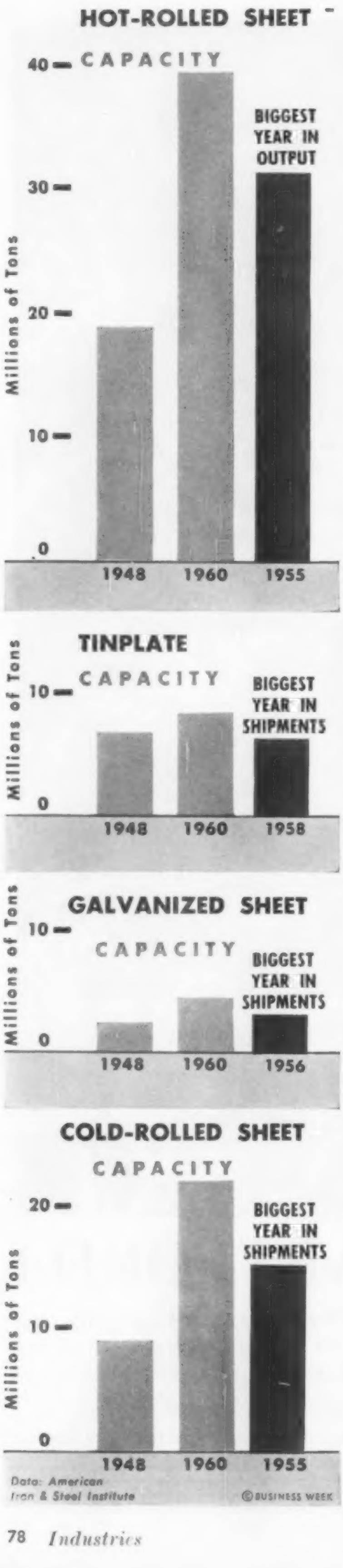

. . . it didn't take long for steel buyers to learn that steel price increases followed steel wage increases . . .

(STORY on page 74)

few times since the war, the critical jam in the steel market was in product capacity (charts, at left).

Most often, those tie-ups affected light flat-rolled products—hot and cold reduced sheets, tin-plate, more recently galvanized sheets. Jointly, these account for more than 40% of all steel products. And through most of their prolonged manufacturing cycles, most of these products flow through the same mills and furnaces. Hence the capacity expansion job to supply all of them was enormous.

Unlike the capacity in the iron and steel departments, which can be expanded pretty quickly and drastically by adapting old equipment to modern practice, there's less you can do to expand capacity of existing finishing mills. Mostly what you do is install new mills. With demand for them brisk and mill-builders few, that involved considerable standing in line. Quite a few foreign steelmakers were standing in the same lines.

That helped prolong the period before U.S. product capacity got far enough in front of peak demand to let the steel buyer relax.

III. Prices and Labor

Two other factors kept this pot boiling furiously. One was the series of five industrywide strikes since the war, totaling 290 days. Cumulatively, and at least temporarily, they cost about 57-million tons of steel. That's the equivalent of a year's production from all the capacity added postwar.

The fact that they were so predictable and that they shut off almost 90% of the supply for periods ranging from four weeks to almost four months affected the steel market, periodically, as much as the capacity shortages did.

For always, they caused inventory buildups before and after the strikes. And always they were eventually followed by inventory drawdowns after the post-strike buildups. It's one of these drawdowns that we're completing right now.

Prices, too, complicated steel's postwar market, although they affected it less than either capacity shortages or strikes. Steel started the postwar era with a peculiarly depressed price level. Hence it didn't take long for steel buyers to learn that steel price increases followed steel wage increases. So the buyers hedged against price boosts, further complicating the market.

• **Expansion Plusses**—Through all this, steel continued to expand and modernize. By the end of this year, it will have spent almost $13.6-billion—which is two and a half times its total assets when the process started. It bought 61% more ingot capacity, a great deal more product capacity, and a productivity that has about doubled.

There are some intangible plusses as well—the plant is a lot more versatile, there are more producing locations, the technology is vastly better, research is well established.

IV. The New Look

For all these reasons, the postwar steel buyer paid the closest possible attention to mill delivery promises—piling in with orders as deliveries lengthened, cutting back as they shortened. This was destructive both for the customer and for the supplier. It raised the cost of steel greatly for the buyer, and it caused steel's operating rate to fluctuate twice as widely as the economy, both on the way up and the way down.

But because capacity wasn't equal to surges in demand, the prudent steel buyer had to carry his own inventory, and this was the only way he could do it.

• **Abortive Shift**—The correction that has been taking place in 1960 might very well have started in 1956. Then, a 35-day steel strike brought a three-year labor contract. By yearend, ingot capacity was in good shape. At least some customers, including one auto maker, did start the big switch back to the prewar policy of letting steel carry the inventory.

But not all steel's product capacity was in place, and the wage-increase-price-increase cycle became more intense than ever. So the correction that might have taken place then—and that might have been less severe had it happened then—never did quite come off.

A recession, which for steel was quite sharp, came along. This was followed by the heaviest pre-strike inventory building in history. Then came the longest strike—one which, surprisingly, never did drain the U. S. economy quite as dry of steel as everyone had figured it would.

• **Post-Strike Rush**—The seeds of the 1960 correction were sown when steel went back to work Nov. 7 last year. The industry was so thoroughly prepared it even had quite a few of its furnaces hot. Equipment had suffered

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(See the following pages.)

. . . concrete beams provide an example of why steel isn't yet out of the woods . . .

(STORY on page 74)

strikingly little. Most important, for the first time in 20 years, steel had more than enough capacity of every kind.

Now, if steel and its customers had realized that—and if there hadn't been the nagging uncertainty about a renewed strike 80 days later—there might not have been the staggering inventory reversal that took place in just four and one-half months. For steel got all that capacity operating so fast, and so much foreign steel poured in, that inventories rose about 65% between Nov. 15, 1959 and Mar. 31, 1960.

• **Sudden Realization**—Then business discovered it had on hand what even a conservative would agree was a normal inventory for a good business year. It also knew, suddenly and without question, that it could buy any steel product, in any market, at any time, and get just about the shortest possible delivery.

That realization of what the long postwar buildup had been leading to triggered still another inventory drawdown. And that is exactly what has put the operating rate down steadily since March. The only good thing about it is that it had to happen, that it's about over, and that it could be the last.

V. The New Competitors

There are four reasons why all this isn't ushering in steel's millenium overnight—why steel still has severe problems to face just ahead.

One is competitive materials.

If you drive Route 22 from Harrisburg to Easton, Pa., or Route 31 from New Stanton to Washington, Pa., you'll see 100-odd overpass bridges made of prestressed concrete beams. Since they stand almost in the shadow of the two largest steel structural mills in the world (Bethlehem Steel's at Bethlehem on Route 22, and U. S. Steel's at Homestead not far from Route 31)—in a state that produces more steel than all but two nations in the world—those concrete beams provide a pretty drastic example of why steel isn't yet out of the woods.

• **Battle**—Those prestressed concrete beams are symbols of a rugged commercial battle that's going on between steel's wide-flange beam and concrete's prestressed beam.

It doesn't cover the entire market—there are some applications that only steel can meet. But concrete has been

doing its home work for years, improving its product, extending its applications, researching both market and product intensively and selling like mad.

As a consequence, when the structural producers—primarily U. S. Steel and Bethlehem—were caught with their plants down for expansion at a time when highway planning design, and engineering were soaring five years ago, prestressed concrete was ready to and did exploit a major breakthrough.

• **No Longer Presold**—Steel isn't out of the structural market, of course. It has some sparkling new design techniques and some new, cost-cutting products—plus capacity to burn. But concrete has pushed into portions of the market it couldn't compete for seriously a decade ago. So steel's relative share—whatever the size of the market—will be smaller, its selling more costly, its pricing tighter.

A portion of the structural market which 10 years ago was automatically presold for steel, in short, is now highly competitive. That same thing has been happening all through steel's product list (BW–May9'59,p30). Fifty years ago, most steel was presold automatically. Since then, the proportion of steel's product that sells itself has declined steadily. Indeed, we'd be a strikingly backward economy if that weren't the case.

• **Aluminum and Plastic**—Aluminum and plastics are popular, and not wholly understood, examples. They're not about to take over the automotive market—steel's largest. But they are diligent competitors for part of it and they're selling for uses they couldn't command 10 years ago.

VI. Hobbles on Growth

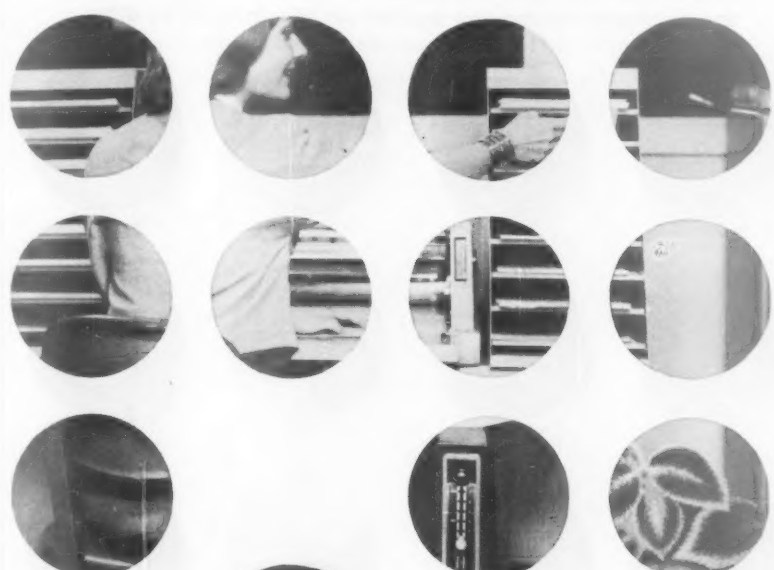
Steel has another kind of market problem, and the oil business is a classic example of that.

"For 17 years," says one oil country goods producer, "we didn't miss a turn on our seamless pipe mills for lack of orders."

From 1945 to 1955, demand for oil country goods casing, tubing, drill pipe—a handsome steel market—grew faster than that for any other steel product. Less than five years ago, the market projections for oil country goods in the 1960s impelled an expansion so massive that it was far from complete when demand began a slide that hasn't ended yet.

• **Not Up to Hopes**—Even more troublesome is this: Some pretty responsible steel industry opinion figures that steel consumption per 1,000 ft. of oil well drilled already is down 10% over the last few years, may drop 10% more during the 1960s. This they attribute to improved drilling technology.

Between that and the remarkable dis-



parity in cost between domestic and foreign oil, a fine market that steel had figured would be superfine in the 1960s has lost a lot of its polish.

• **Outlook in Autos**—The auto industry, steel's largest customer, is another example. Several things constrict steel's growth in that market, where growth has been handsome, if erratic, for years. The promotional campaigns that steel is beaming at Detroit demonstrate how much it is feeling the competition of plastic and aluminum there.

So far, aluminum and plastics haven't displaced a great deal of steel in autos, but they have limited steel's growth in the auto market (BW—Jun.25'60,p34). As their automotive applications broaden, steel's presold automotive tonnage constricts, competition toughens, prices harden.

• **Compacts and Steel**—Developments in Detroit itself add to the impact. Just as practice in oil production changes—and cuts the steel needed per well—taste changes in autos, also to steel's disadvantage.

Perhaps spurred by ever-higher gasoline taxes and ever-lower gasoline mileage, the smaller automobile is becoming a fact—in many standard models as well as in the compacts. The latter, it's estimated, will take at least 40% of the 1961 model year's production. Steelmen figure you can build three of them with the steel two standard cars would require. That also slows growth.

One steelman has put the compact situation in another way. Even if the compacts were to take only 35% of the 1961 model year's production, he said, the auto industry would have to produce 9.3-million passenger cars to equal the automotive steel consumption in the record year of 1955. That was the year Detroit produced 7.9-million passenger cars, its peak figure so far.

Again, these aren't insoluable problems. It's just that steel will be a little less dominant, hence will have to compete harder, serve better, price tighter.

VII. The Foreign Threat

The third problem that makes steel's new posture a tough one is foreign competition. Steel's union derides it, but it's real—and here's why:

• Free World steel capacity is rising smartly, particularly in those products where we've exported most heavily. That threatens exports.

• There's no persuasive narrowing of the labor-cost differential that permits both European and Asian producers to undersell domestic producers by important margins when their own domestic demand slides off. That spurs imports.

• **Equipped to Penetrate**—So, if you cut through all the industry-union argument, what remains is this:

. . . will there be a price increase sometime next year before Oct. 1 . . .

(STORY on page 74)

• The U.S. offers the world's largest market with the highest prices.

• Foreign producers are better equipped to penetrate it today than they've ever been—and they've proved they can penetrate it successfully.

If you can imagine foreign producers will turn their backs on such a market when they have capacity to sell, you can dismiss foreign competition as a problem for steel—as the union does. The industry, though, is less sanguine.

VIII. Is the Price Right?

The steel import problem sharpens steel's fourth problem to a needlepoint. That problem is pricing.

Last Jan. 5, steel's employment costs went up 14¢ per hour, with no price increases. On Dec. 1, they will go up about 11¢ more—and they'll be no price increase. On Oct. 1, 1961, they go up another 14¢.

• **Questions**—Will there be a price increase sometime next year before Oct. 1? Will there be one then?

Quite a few steelmen say there simply must be, financially speaking. But quite a few concede prices already have risen too far, speaking commercially.

They know that if prices rise further, that simply makes the attractive U.S. market even more attractive to foreign competition, and prices the domestic product still farther out of foreign markets.

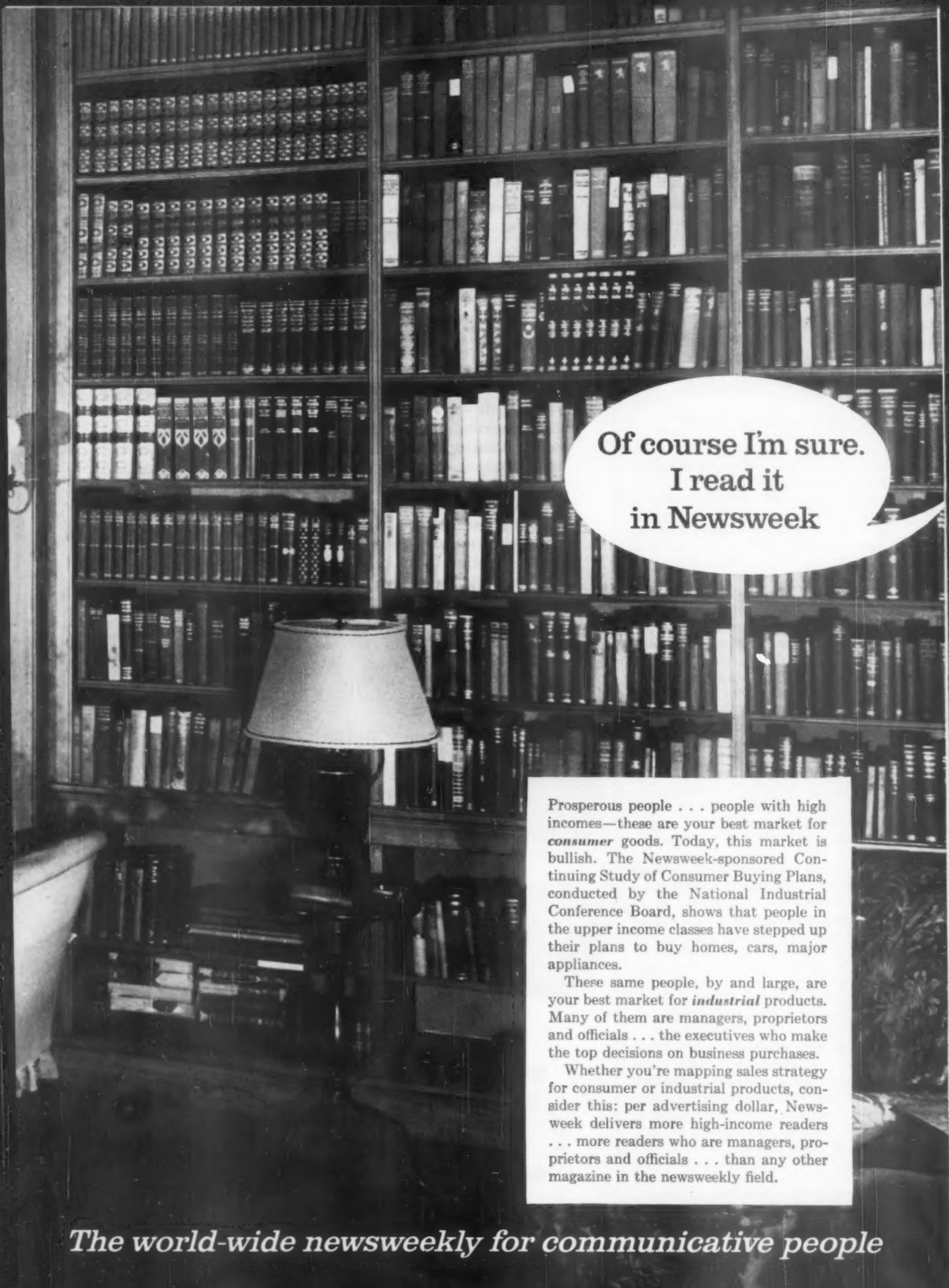
They know that same holds for steel's tussles with competitive materials, most of which are basically more costly than steel.

• **Squeeze**—The answer to this thorny problem starts with the steel outlook for 1961. Those who guess this far in advance are guessing around 95-million ingot tons. That would signal earnings only a little greater than a decade ago, when shipments were about the same, prices and costs were far lower, and total assets were about half as large.

In short, that would signal an earnings squeeze.

• **Means for Solution**—To solve that problem, steel must solve the other three—competitive materials, constricted growth prospects, and foreign competition. That's why steel's next couple of years look arduous, indeed.

But all that capacity and all that efficiency—with more of both coming in every month—have brought about the even more drastic change in steel's basic position. And it's that change that makes a solution possible. **END**



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Europe Buys More U.S. Goods

It is now just about a year since Britain, France, and Italy loosened the tight, discriminatory restrictions they had slapped on U.S. exports during the dollar shortage after World War II. The liberalization, partly a result of heavy U.S. government pressure, promised to boost American sales abroad and so cut into this country's worrisome balance of payments deficit.

How well has the promise been realized? Today U.S. businessmen and government officials have the numbers with which to take a reading.

• **Dramatic Rise**—U.S. exports to the three key West European nations have stepped up dramatically since last year (see charts above). Shipments to the United Kingdom this year are moving at a 65% higher rate than in 1959. Our exports to France are stepping along at better than a 80% greater pace and to Italy at nearly a 60% greater pace.

Moreover, American exports to those West European countries like West Germany, Holland, Belgium and the Scandinavian nations, which eased quantitative restrictions on dollar goods even earlier, also continue to be heavily on the rise. Indeed, U.S. exports to all West Europe this year are running nearly 50% ahead of 1959.

• **Statistical Problem**—Precisely how much of these increases can be ascribed directly to the trade liberalizing moves, such as easing of quotas and currency controls, is difficult to pinpoint statistically. Unquestionably other factors have played major roles in boosting our sales in Europe, especially the fact that Europe is currently enjoying an economic boom. And the U.S. government's export promotion programs doubtless have had some effects.

Then, too, certain goods have been influenced by special circumstances. Export of commercial aircraft was slowed in 1959 because of the industry's gradual changeover from propeller to jet engines. And Europeans delayed cotton purchases while U.S. supports shifted and brought cotton prices down.

Nevertheless, a number of studies both here and abroad indicate that a substantial part of American businessmen's increased sales in Europe can be fairly credited to trade liberalization. Under Secy. of State C. Douglas Dillon has suggested that possibly as much as 25% of the improvement in the U.S. export-import trade balance in 1960 will come in goods previously restricted. This would amount to $750-million if present trends continue. Other U.S. officials tend to be more conservative, but still predict that liberalization will boost U.S. exports $200-million to $300-million this year.

These estimates are based on spot checks on the performance of recently decontrolled U.S. exports. For example, Commerce Dept. officials have found that a selected group of consumer items—including food products, textiles, leather goods, automobiles, toys and jewelry—totaled $255-million in sales to West Europe, Australia and New Zealand in this year's first half, compared with $150-million in the first six months of 1959. And the largest portion of the $105-million increase came in the United Kingdom, West Germany, France and Italy.

• **United Kingdom**—The U.K., which today retains discriminatory controls on only 10 U.S. commodities, imported about $986-million worth of U.S. goods in the first eight months of this year, compared with $598-million during the same period last year. And roughly 10% to 15% of this increase has been made in goods that were liberalized by the British last November.

A survey by the U.S. Embassy in London shows this performance in the first five months of 1960 against the same period in 1959 on U.S. exports liberalized in November: Synthetic fibers and fabrics rose from $800,000 to

$5.6-million; cotton yarn and fabrics from $71,000 to $1.7-million; clothing and footwear from $600,000 to $3.9-million; canned fish from $500,000 to $2.7-million; canned juices and soups from $110,000 to $1.4-million.

• **Italy**—The Italians dropped about 1,000 dollar items from discriminatory controls in January of this year and are preparing to free nearly all capital goods next month. U. S. exports to the country hit about $314-million in the first half of 1960, compared with just under $200-million in the same period last year. According to Italian government statistics, in the first six months of 1960 liberalized U. S. goods showed these increases over the same period in 1959: Scrap iron up from $12,335 to $1.5-million; industrial oils and greases up from $8.2-million to $15.4-million; wood pulp from $1.6-million to $3.6-million; synthetic rubber from $4.4-million to $9-million.

• **France**—The French made six slashes in quota restrictions last winter, now limit only two manufactured items (ethylene glycol and cosmetics) and 21 agricultural products. In the first six months of this year, the country's imports from the U. S. totaled about $300-million compared with $155-million for the same period in 1959. A Finance Ministry official estimates that around 40% of this increase has come in goods most recently liberalized.

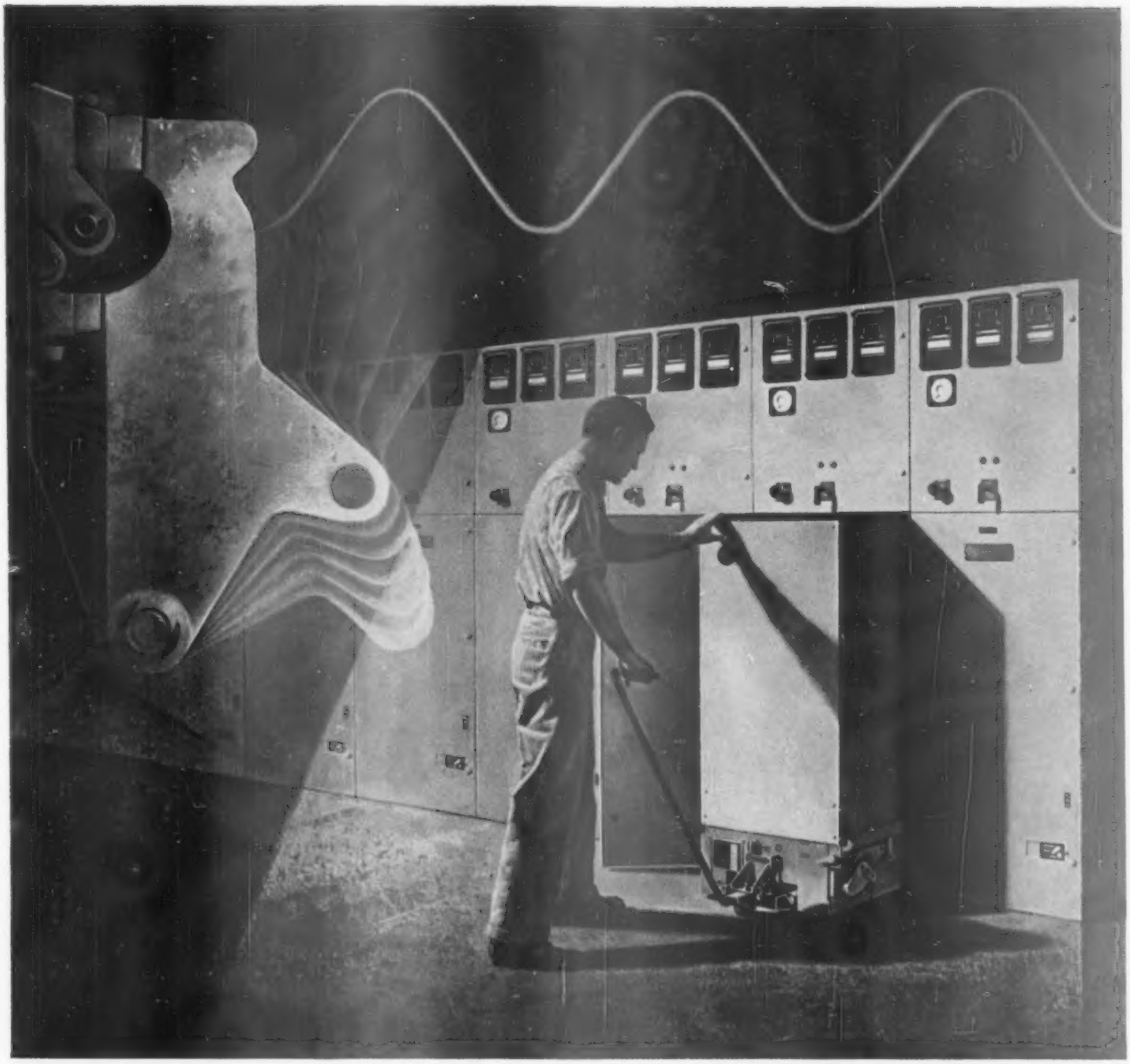
The most important U. S. export gains to France made in the first half of this year over last: Cotton goods rose from $9.5-million to $65-million; aluminum, from $424,000 to $6.9-million; synthetic textiles, from $12,800 to $5.4-million; automobiles, from $6.8-million to $8.8-million; natural and synthetic rubber, from $15.5-million to $23.2-million; electrical machinery, from $6-million to $16.2-million.

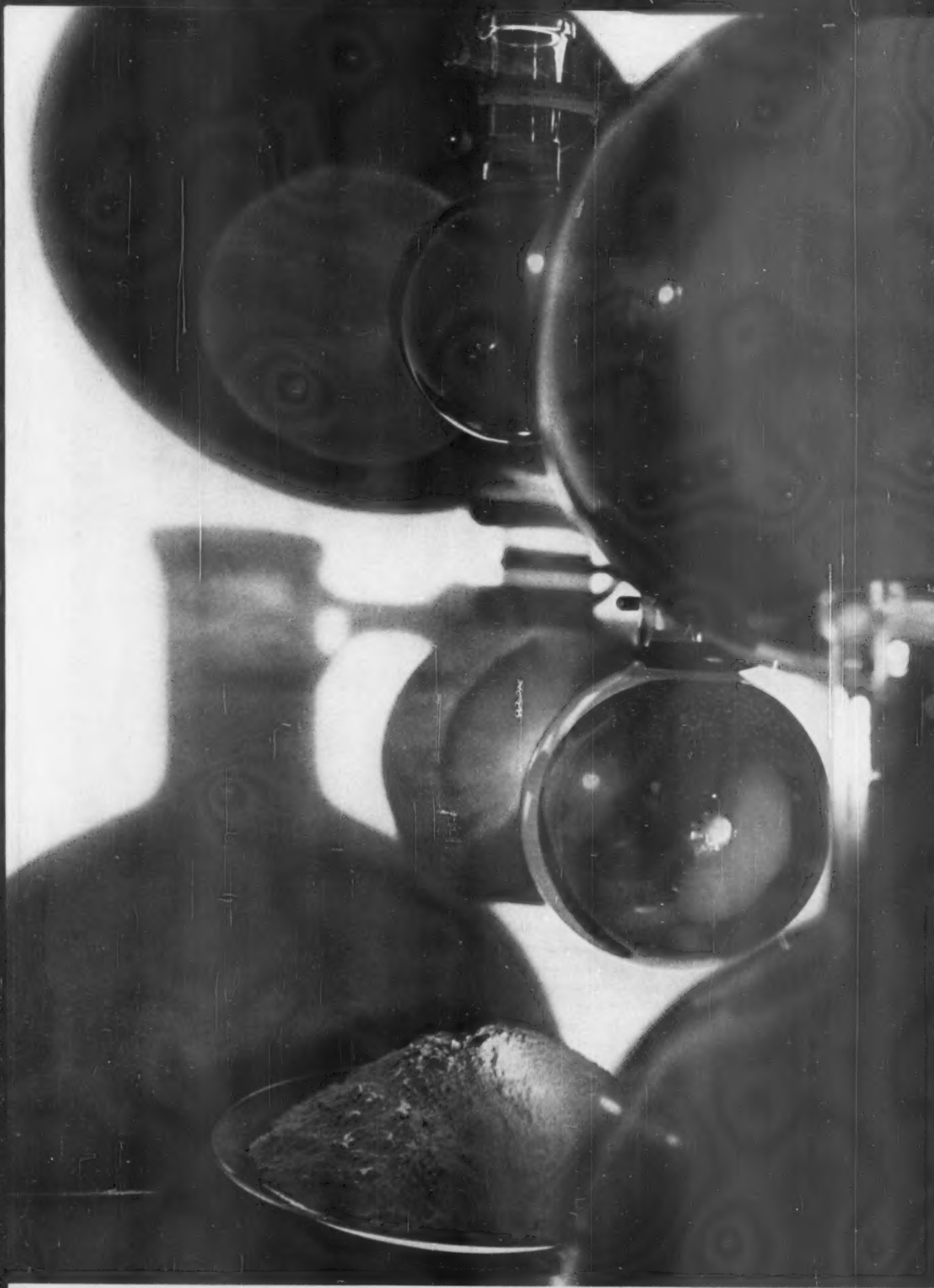
• **Lasting Impact**—U. S. trade officials by and large feel that the benefits of European trade liberalization will be lasting. In fact, some Commerce Dept. officials say that the full effect of recent liberalization moves probably won't be felt for as much as five years.

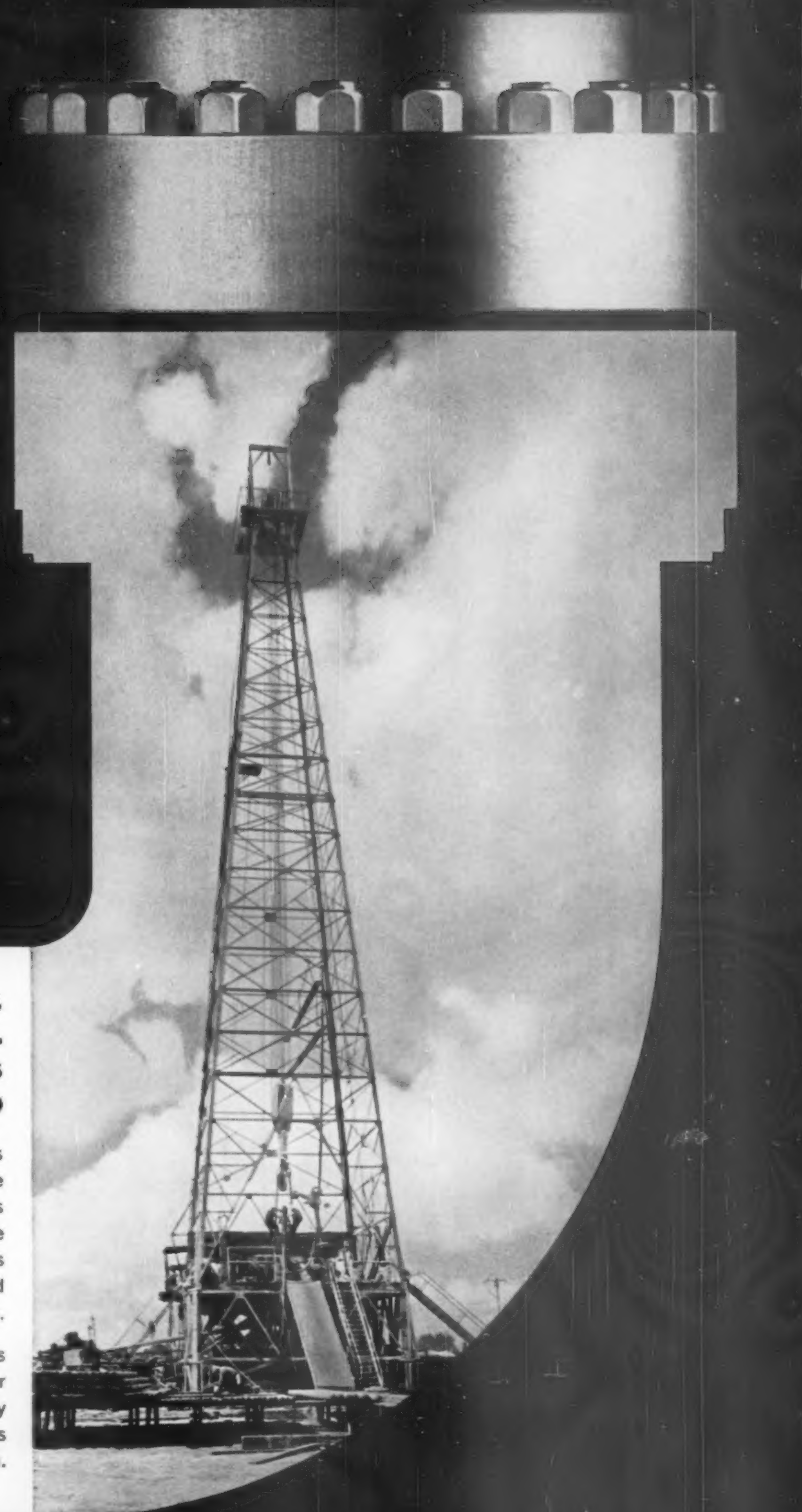
This is partly because it takes some time for U. S. exporters to recognize and take advantage of new trade opportunities.

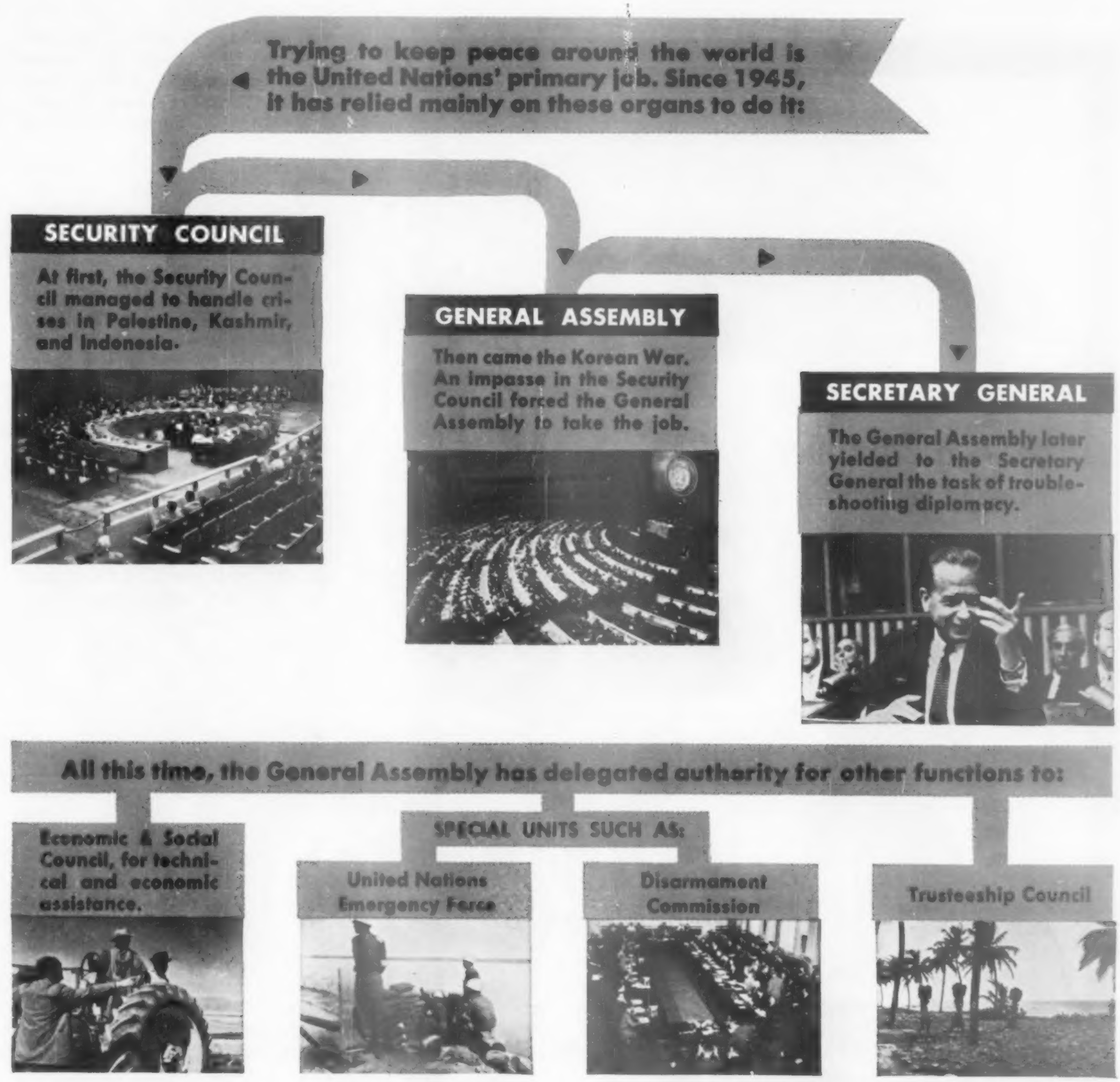
A recent U. S. Chamber of Commerce survey in France showed that American companies continued complaining about import licenses even after their products had been liberalized.

To be sure, there have been some sudden spurts in U. S. exports following trade liberalization that cannot be expected to last. But in the long run, many experts feel, the increased standard of living in Europe will whet new appetitites for U. S. products previously banned or tightly curbed. END


Closing and opening of contacts is the ultimate test of switchgear design. Here artist Ned Seidler depicts this new equipment and the most advanced contact operation in the industry.







A New Era of Change for U.N.

The United Nations this week is emerging from a month of sound and fury and heading into a period of uncertainty and change. Gone from New York are the visiting chiefs of state—Communists Khrushchev, Kadar, and Castro; neutralists Nasser, Nehru, and Nkrumah. But left behind are the issues—the Congo, disarmament, Algeria, colonialism, and revision of the U. N.'s structure.

It may be months or even a year before the pattern of the future crystallizes. But the first signs of change are already appearing. This week, as it celebrates its 15th anniversary, the U. N. also marks:

A time of testing. It has passed through the crises of Korea and Suez. It is now in the crisis of the Congo (BW–Oct.1'60,p25).

A new power relationship within its halls. Voting control in the General Assembly is shifting away from the Atlantic Community toward the Afro-Asian nations. This will reflect itself in pressures to change other parts of the U. N.'s organization.

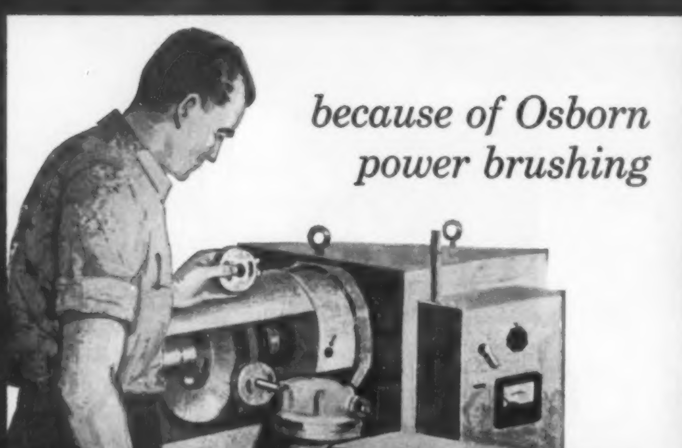
A new degree of U. S. involvement in the U. N. In the past, U. S. has relied but little on the U. N. Now the U. N. is becoming a focal point of U. S. foreign policy.

Less glamorous and spectacular, perhaps, **an ever-increasing importance in the sphere of international economics.**

An American diplomat calls the U. N. "certainly the most complex diplomatic instrument ever devised." It is a loose association of nations born of a wartime alliance that was coming apart even before the end of hostilities. It has survived through a period of cold war, rampant nationalism, and rising economic and political expectations.

I. Three Ages of U. N.

All this has left its mark, and the U.N. of 1960 has evolved a long way from the U.N. of 1945. It has developed



through three rather distinct eras, each characterized by a central role for one of its three principal political components: the Security Council, the General Assembly, and the Secretary General.

• **Security Council**—The first period, from the founding of the U. N. in 1945 to the outbreak of the Korean War in 1950, was the Era of the Security Council.

Under the U.N. Charter, the Security Council is charged with maintaining international order and peace. During the first five years, it was moderately successful, despite a sprinkling of Soviet vetoes. It helped contain conflicts in Indonesia, Kashmir, and Palestine and was able to negotiate cease-fire agreements. In these areas, the big powers permitted the council to function because they were not directly involved in the disputes.

The Security Council's effectiveness declined quickly, however, after the Korean War broke out. The Soviet delegate brought U.N. action almost to a standstill with vetoes. To get around this blockade, the U. S. got the General Assembly to adopt what is known as the "Uniting for Peace" resolution, which allowed it to take over the Security Council's job.

• **General Assembly**—Thus began the second period, the Era of the General Assembly. The assembly was originally intended as a forum where all nations would be heard equally, each would have one vote, and there would be no big power veto. It supposedly had power only to make recommendations to the Security Council and to members.

The general Assembly has exerted influence through that intangible force called moral pressure. This has been made possible by the speed of modern communications, the spread of literacy, and an increasing public awareness of the affairs of state.

However, the General Assembly is an unwieldy body for executive action, and it has gradually turned over much of the diplomatic trouble-shooting to the Secretary General. This policy moved into full force after Dag Hammarskjold's appointment in 1953, succeeding Trygve Lie, who had regarded the post as more administrative.

• **Secretary General**—This shift of emphasis is not so easy to date as the first two periods, but it opened the third period of U. N. history, the Era of the Secretary General. In 1955, Hammarskjold began what he terms "preventive diplomacy" with a trip to Communist China to negotiate the release of U. S. prisoners. His real test came the next year during the Suez crisis, which the General Assembly assigned to him.

Since then, Hammarskjold has brought the office of the Secretary General to the fore as an instrument of

international diplomacy. With the mandate of the General Assembly, he has injected himself into critical situations in Palestine, Lebanon, Laos, and the Congo, and has tried to reduce strife in Algeria and South Africa.

Hammarskjold has been effective because he gained the confidence of the major powers with his deft diplomacy and his discretion. But he has never been able to operate where a big power didn't want the U.N.—the Hungarian rebellion of 1957 was an example of that—nor has he been able to reconcile differences between the U.S. and the U.S.S.R. on such issues as disarmament.

By the realities of power politics and by his own estimate of the limits of his office, he has been confined to trying to prevent the spread of the cold war, to keeping the smaller conflicts from blowing up into bigger ones.

II. The Congo Test

In the chaos of the Congo's first weeks of independence, Hammarskjold pulled off what a U.S. ex-diplomat places among "the highest pieces of statesmanship in the postwar period." The Soviet Union had seen an opportunity to turn that hapless nation into a satellite in the middle of Africa. But the U.N.'s firmness and Hammarskjold's adroit maneuvers stopped that.

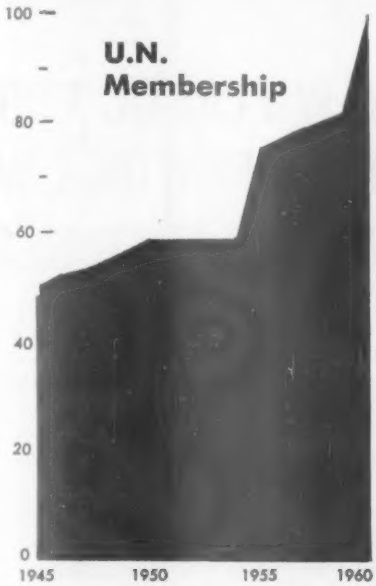
This, plus other cold war considerations, led Soviet Premier Khrushchev to the 15th General Assembly (BW—Sep. 17'60,p25). In the past month, Khrushchev has conducted an all-out attack on the U.N. He has tried to make it an instrument for Russian use or at least to reduce its effectiveness as an international body. From all indications, the U.N. has survived the threat to its existence. But Khrushchev's attacks, coupled with other trends, are changing the U.N.

• **Hammarskjold's Role**—Most immediately, the office of the Secretary General will surely not be so powerful as it was before the Congo events. The Russians may return to the badgering tactics or ostracism with which they forced Trygve Lie' resignation.

Hammarskjold has vowed that he will not resign as long as the majority of the small and medium-sized powers want him to stay on. But if the Russians hamper his work seriously, those nations may compromise with the Soviets and quietly ask Hammarskjold to depart.

In any event, it's extremely doubtful that Hammarskjold will be returned to office after his term expires in April, 1963. The Russians can veto his reappointment nomination in the Security Council, which must recommend the appointment to the General Assembly.

This hamstringing of the Secretary General, plus the continued use of the veto in the Security Council, leaves the General Assembly as the influential body within the U.N. Here begins the



fourth period of U.N. history, the Second Era of the General Assembly.

III. New Alignment

Possibly more important, the trend toward universality of U.N. membership has shifted the power to decisively influence the U.N. away from the nations of the Atlantic Community toward the Afro-Asian countries. These nations, now making up about half the U.N. membership, see the General Assembly as offering them the best chance to influence the U.N. course.

• **Rising Membership**—This trend began in 1955, when a package deal admitted 16 new members. Until then, membership had increased only slightly from the original 51 members (chart). From 1955 to 1960, membership increased only gradually. This year brought the admission of 17 new members, almost all of them newly-independent African states.

In the 99-member General Assembly today, African nations have 25 votes, the Western Hemisphere countries 22, European states 20, Asians 14, Middle East 9, and the Soviet bloc 9. It takes a two-thirds majority vote to decide a substantive matter.

• **Want a Change**—The Afro-Asians nations want to see the new political-geographical pattern reflected not only in the General Assembly but elsewhere in the U.N. organization. They are pushing for revision in the Secretariat at the level immediately below the Secretary General's office. Indian Prime Minister Nehru and other neutralists have proposed an advisory group of deputies, without the veto power that the Russians have demanded.

They may also press for a Secretary General from their area when Hammarskjold's term is over. Because the major powers are likely to veto each other's candidates, a compromise is likely. An Asian is the more probable choice, since many of them have had more diplomatic experience.

These non-aligned nations want more representation on the Security Council and will push to expand it for wider geographical representation. But it's doubtful that they will be able to amend the Charter to change the permanent members—the U.S., U.S.S.R., France, Great Britain, and China.

• **No Move in Sight**—Khrushchev demanded that the U.N. be moved from New York. He may get partial satisfaction. With its increase in size and functions and the consequent lengthening of sessions, there's a good chance that the General Assembly will meet twice instead of once a year. One session might be held outside New York, rotating among major cities of the world like the Olympic Games.

The headquarters and Secretariat are not likely to move, however. A move would be too costly. And there aren't many places for the U.N. to go. The Swiss don't want it, and almost any other place will meet objections from one side or the other, arguing that the proposed location is not neutral ground.

• **But a New Function**—In sum, the U.N. is becoming an organization that no single bloc dominates. Because of that, it will be more difficult to get the needed approval of two-thirds of the members for any proposal. Proposals that are adopted, however, will carry the chief moral force that the U.N. can bring to bear. How potent this will prove to be, only time will tell. Because the Secretary General and the Security Council are cramped by their operating rules and by political realities, executive action by the U.N. will be more difficult.

The U.N. is becoming a forum for presenting national policy—not only for a worldwide audience but for domestic consumption. Politicians everywhere recognize the prestige that addressing the U.N. gives them at home. The parade of heads of state to New York this fall is likely to be repeated.

IV. U.S. Policy

U.S. foreign policy makers sometimes refer to the U.N. as the cornerstone of U.S. foreign policy. But a former diplomat observes that "although cornerstones were once architecturally useful, today they carry little weight and are largely ceremonial."

So far, the U.S. hasn't used the

NEWS ABOUT PRODUCT DESIGN AND MATERIALS

The happy marriage of modern plastics materials and mass production techniques has been a boon to product designers. With economical production methods assured at the outset, they have been able to take many new and original Dow plastic raw materials and mold or extrude them into products with built-in durability, color appeal, and the "tomorrow" look. Here are some ideas . . .

NEW PLASTIC PRODUCTS WITH GERM FIGHTING, WATER SAFETY, AIR MOVING FEATURES . . . WHAT NEXT?

Each of the members of the Dow family of thermoplastics has its own special qualities . . . and each of these versatile materials can be further modified to fit specific needs or provide unique selling features. The result: a wide range of highly specialized plastics with such benefits as built-in germ fighting action . . . high impact strength . . . high heat resistance . . . exceptional moldability. Take a new formulation of polyethylene, recently developed by Dow . . .

Toys for infants and children are made of polyethylene because it is light, resilient, tough and easy to clean. There is no porosity to absorb moisture or dirt, and paints or coatings which could flake or chip are not necessary. Now, with the formulation of a germ fighting material, Surfaseptic* polyethylene makes possible molded toys which actually destroy many bacteria, such as the dreaded Staph, when in contact with the surface.

Surfaseptic polyethylene provides an extra health safety advantage. An integral part of the polyethylene itself, the antibacterial properties of Surfaseptic will not wash or wear off for the normal life of the toy.

The protection which Surfaseptic polyethylene provides is an effective selling point for toys. Equally effective from the production standpoint is the possibility of blow molding these toys. Blow molding provides greater strength and reduces the extra cost of matched male and female molds.

In addition to toys, Dow plastics engineers predict a bright future for Surfaseptic polyethylene in such applications as wastebaskets, door knobs, telephone headsets, and armrests on public conveyances.

*Trademark

Mouth-to-mouth resuscitation takes a giant step forward with the introduction of this unique "mouth-to-mask" resuscitator. This handy device relies on the special properties of several Dow thermoplastic materials in its design.

Both the patient's and operator's mouthpieces are molded of Styron® plastic to take the hard knocks of emergency use and for the good fabricating qualities of this plastic material. The resuscitator tube and the catheter tube are of vinyl formulations. The "airway" for keeping the patient's throat clear is molded of tough moisture- and chemical-resistant Dow polyethylene. The mouthpiece assembly and resuscitator valve are molded of Styron 440, a high-impact, high-heat-resistant formulation.

Unique mouth-to-mask resuscitator relies on a variety of Dow thermoplastics.

Moving air in the age of plastics. Another member of the Dow family of thermoplastics—Tyril®—is now being used for molding condenser fan wheels. Its high tensile strength minimizes creep and cold flow. Its excellent moldability assures a detailed reproduction of the complex configuration, curves and angles of the fan wheel design.

When wash day rolls around, this versatile formulation—Styron 440—is ready, willing, and able to meet the challenge of today's automatic washers. Lint filters and other parts molded of Styron 440 have the extra strength to withstand years of rugged service . . . the chemical and heat resistance to shrug off laundry detergent attacks and high washing machine temperatures.

Complex condenser fan molded of Tyril.

Lint filter of heat-chemical-resistant Styron 440.

First-aid kits that float are designed for fishermen and boaters. The Dow polyethylene 510 formulation that serves as the case for this indispensable sporting equipment, gives the whole package toughness, chemical stability to withstand rust and mildew attacks, and most important, it guards its precious cargo of bandages, ointments and antiseptics against water damage.

Everyone's an old master when he rolls up his sleeves and goes to work on a numbered oil painting set. The latest of sets has individual paint jars molded of Tyril. This rigid material was selected for its ability to reproduce fine details —especially in the molding of the screw-top threads and grooved bases of the paint jars.

Floating first-aid kit of Dow polyethylene 510.

Individual paint pots are molded of Tyril.

HOW ABOUT IT? Have you taken a close look at your products lately in terms of (1) the new and original plastics from the research labs of Dow, (2) the new formulations and applications of the established Dow plastics, or (3) the new economies in production techniques? An examination today might mean greater sales appeal and more efficient production tomorrow. If we can be of any assistance in selecting the right formulation for your product or assisting you in color styling and marketing, please write THE DOW CHEMICAL COMPANY, Midland, Michigan, Plastics Merchandising Department 1765AF10-22. *See "The Dow Hour of Great Mysteries" on NBC-TV*

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U. N. much to further its foreign policy aims. In its efforts to contain the Soviet bloc and to rally non-Communist nations, it has relied primarily on alliances such as the North Atlantic Treaty Organization, on regional agreements such as the Organization of American States, and on bilateral aid agreements.

Prior to the Korean War, most Americans were apathetic toward the U.N. When the war started and the U. S. was fighting under the U.N. flag, interest perked up. After Hammarskjold obtained the release of U. S. prisoners held by Communist China in 1956, interest grew still further.

• **Greater Use for U.N.**—With the Suez crisis, the U. S. began to see some real use for the U.N. as a foreign policy instrument. Later, the U. S. whipped the Russians verbally in the U.N. over the Hungarian rebellion and the Communist Chinese invasion of Tibet. Last summer, it took the RB-47 incident to the U.N. to ask for an international investigation.

More of this is coming. Pres. Eisenhower, in his speech before the General Assembly early in this session, pledged more support of the U.N., saying, "The United States stands squarely and unequivocally in support of the United Nations and those acting under its mandate in the interest of peace."

• **On New Ground**—Because the U.N. has evolved into a worldwide forum, the U. S. will have to pay more attention to it, unless there is a move toward isolationism. In the 1950s, cold war maneuvers were based largely on military power. In the 1960s, as the nuclear stalemate has developed and both sides recognize the devastation that military ventures risk, the cold war has move into economic and ideological fields. Much of this competition will take place within the U.N.

This does not mean that the U. S. will slight its other commitments—in NATO and OAS, for instance. U. S. involvement in the U.N. is in addition to, not in replacement of, the alliances and regional groupings.

• **Neutrals Effect**—Just how much effect the U.N., and particularly its neutralist members, will have on U. S. foreign policy is open to question. One school of thought argues that it will have very little, that the U. S. will ignore or bypass the neutralists when they move contrary to Washington's policy.

Another school contends that the U. S. cannot afford to offend the neutrals, that it must step up its propaganda and political maneuvering.

V. Economic Affairs

Away from the hot air and intrigues of politics in the U. N., the organization's economic agencies have been

steadily and quietly building their activities. These are grouped in two general categories: (1) the technical assistance programs and (2) the financial and investment work carried out by such affiliated agencies as the World Bank and the International Monetary Fund. While these agencies are autonomous, the U. N. Economic & Social Council tries to coordinate their work.

• **Special Funds**—The Expanded Programme of Technical Assistance, founded in 1949, directs its effort toward underdeveloped countries. Working through such agencies as the Food & Agricultural Organization and the World Health Organization, it offers instruction in modern farming methods, control of malaria, and vocational training. Generally, its projects are limited to about $200,000.

To handle larger economic development work, the U. N. established the Special Fund in 1958. It conducts pre-investment surveys to determine the extent of natural and economic resources in a given area or country. The Special Fund's head is Paul Hoffman, formerly of the Marshal Plan.

The Expanded Programme and the Special Fund have been working toward a budget of $100-million. This year, U. N. members have pledged about $83-million for next year's budget. The U. S. contributes the largest share, 40%.

• **More U. S. Backing**—In his U. N. speech, Pres. Eisenhower emphasized the U. N.'s economic role and promised more U. S. backing for it. His proposals for emergency aid to the Congo, assistance in long-term African economic development, and U. N. aid to African education all envisage use of existing U. N. economic institutions.

Similarly, other proposals for economic aid and development are based on the idea of expanding already functioning U.N. agencies. The President's Food for Peace plan would go through the Food & Agricultural Organization, and multilateral funds for development would funnel through the World Bank and its newly formed subsidiary, the International Development Assn.

There are a couple of reasons for U. S. stress on the economic function of the U.N. First, such multilateral assistance to underdeveloped countries avoids the appearance of a return of Western colonialism, which many underdeveloped countries fear above all else. From the U. S. viewpoint, it also stops bargaining of one side against the other.

Secondly, some U. S. officials see this is a lever to get other Western nations, such as West Germany, to increase their shares of the economic assistance burden. With its balance-of-payments difficulties, the U. S. is trying to get others to take some of the load. END

U.S. Rubber Moves Ahead

Three years ago the company completely overhauled its management structure. The results, according to officials: better planning, faster decisions, accelerated expansion.

The election of George R. Vila (cover) to the presidency of the United States Rubber Co. this week is largely the result of a managerial revolution that took place on the company's top executive level three years ago. At the urging of Chmn. H. E. Humphreys, Jr., (picture) the board tore up U. S. Rubber's organization chart and threw out decision-making patterns in use for 30 years.

Chief casualty was committee management, which kept a group of inside directors haggling over a wide variety of operating decisions. The board dissolved this body and divided its jobs among individual top executives.

• **New Responsibilities**—One of those who got a big share of responsibility in the new, more conventional setup was George Vila. He was boosted from chemical division general manager to a newly created job as group vice-president.

Vila reached the job of chemical division manager through a career at U. S. Rubber that included mainly sales and research and development work. He joined the company in 1936 after three years with the Boston Woven Hose & Rubber Co. Before that, he had completed an undergraduate degree at Wesleyan University and a master's degree in chemical engineering at MIT.

As a group vice-president responsible for the chemical, textile, plantations, and international divisions, as well as two subsidiary companies, Vila ran the fastest growing areas of U. S. Rubber's business, besides taking over-all charge of a wide variety of new projects. In his three years at this job, he never lost the engineer's habit of whipping out the slide rule to solve problems in detail.

Vila's record and personal qualities made him the odds-on favorite for the president's chair. And when Humphreys got up last Thursday night at a dinner for outgoing president John W. McGovern—retiring Oct. 30 after 40 years with the company—and announced Vila's election, few U. S. Rubber executives were surprised.

Vila, 51, now president and chief operating officer, and Humphreys, who at 60 remains chief executive officer, aim to speed up U. S. Rubber's growth in all its product areas. And they regard the rebuilt management structure as a prime asset in this effort. "We can start doing some of the things we just talked about in the old executive committee," says Humphreys.

REVIEWING new management ideas are U. S. Rubber's Board Chmn. H. E. Humphreys, Jr., (left) and Pres. George R. Vila.

I. The Old Structure

The committee management that U. S. Rubber threw out was a direct legacy from du Pont-trained executives who moved into the company in 1929. Led by F. B. Davis, Jr.—he just retired as a director last year—du Pont men took over top management jobs to help bolster U. S. Rubber's financial position at the start of the depression. About 120 du Pont heirs still own about 14% of U. S. Rubber stock.

• **Du Pont's System**—Du Pont management organization principles were transplanted lock, stock, and barrel. The essential feature of the system is to place most top operating responsibilities in the hands of the executive committee. In U. S. Rubber, this body was usually made up of the board chairman, president, and four vice-presidents who had no individual operating responsibilities.

To U. S. Rubber's executive committee came virtually all important operating questions for group decisions. In the words of the old company policy and procedures manual, "the members of the executive committee shall act only as a committee and the individual members shall have no power as such." This meant that problems ranging from technical research matters to the size of raw rubber inventories were argued out by a half-dozen or more executives, each with widely different experience and outlook.

• **Signs of Strain**—U. S. Rubber expanded 11-fold under the committee plan. But as time passed, there was increasing uneasiness over the system. Basically, the top brass failed to adapt the system to the growing size and complexity of the company. The committee was plagued with details and decisions that should have been relegated to specialists or lower levels. And increasing diversification made it difficult for committee members to maintain a balanced view of the company's operations.

In the 1950s the strain began to show, especially after Humphreys suffered a heart attack in 1955 and his hand was off the helm for five months. Rather than attempt a patchwork revision, Humphreys threw out the whole works.

In outlining where specifically the system went wrong, most U. S. Rubber executives hit three faults: waste of time, excessive compromise, haggling.

• **Heavy Agendas**—The time spent at committee meetings kept growing. At one point in the early 50's, meetings regularly ran a whole day each week and sometimes extra sessions had to be called. The committee calendar or agenda that the members received for study two days ahead of time often ran to several hundred pages.

At meetings, committee members were officially required to deal with capital appropriations over $100,000 but often spent hours debating items as low as $20,000. Such matters as each purchase and sale of securities from the company portfolio, lists of all executive salaries, and even plant charity donations had to be approved.

• **Lengthy Reports**—Keeping up with the divisions was another major headache. Each week a division manager or department head made a formal presentation. From a concise rundown of sales, profits, and problems that was the custom in early days, the presentations expanded to several hours of chalk talks, colored charts, and demonstrations by specialists called in to help each manager prove a point. Another sore point was that the specialized experience that each member brought to the committee sometimes tended to make him loyal to certain divisions. The more diversified the company got, the more difficult it sometimes became for one man's new pet project to be pushed through without log rolling and excessive compromise.

Worst of all, in spite of the time spent and the haggling, many decisions simply got put off from meeting to meeting. Some committee members felt they had to learn the technical details of problems outside their experience. Sometimes there were simply deadlocks and no one wanted to push the issue to a vote—members remember few voting showdowns.

Few U. S. Rubber executives blame the committee system alone for these faults. They note that du Pont has made practically the identical system work successfully, and most big companies use committees for making at least some decisions.

• **Basic Cause**—If any one factor can be singled out as the cause of the trouble, it is probably the experience and personalities of the people involved. U. S. Rubber executives tend to spell it out in reverse by explaining why

they think committee management works well at du Pont.

Du Pont executive committee members have common backgrounds, they say. They have been brought up the ladder through many different divisions so that they have a companywide view. Some U. S. Rubber people argue that du Pont is essentially dedicated only to the chemical business so that its executive committee is concerned with a narrower field than the U.S. Rubber committee was. There is also a feeling that the historical forces that shaped du Pont, the family character that survives, and the personality of the man who gets to the chairman's job are all factors that help make committee management work there. Humphreys adds that large stock ownership by du Pont's top brass makes for a tighter-knit feeling.

The validity of these ideas is arguable, but the implications are pretty clear. The men on U. S. Rubber's executive committee frequently disagreed about where the company should expend its effort. They had trouble taking a companywide view of problems and they were snowed under with details of parts of the business that were not very familiar to them.

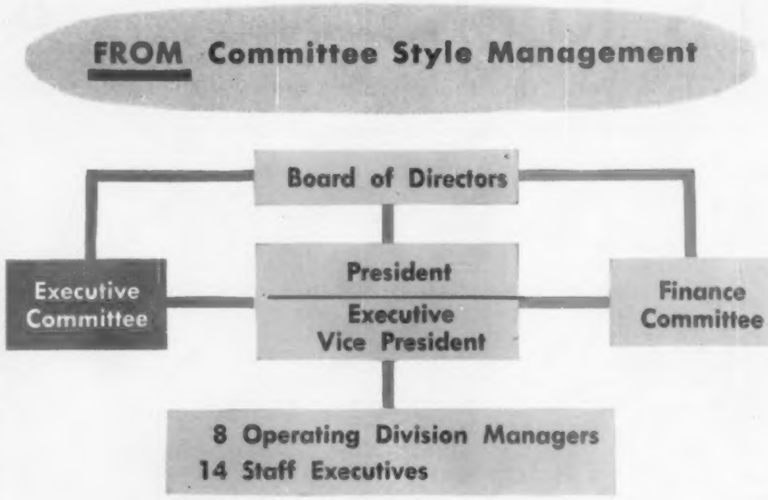
Vila, who was never a member of the executive committee, but often had to report to it, agrees that U. S. Rubber was not producing the right type of executives. "Any system can be made to work. . . . Maybe we took it too seriously," he concludes with a smile.

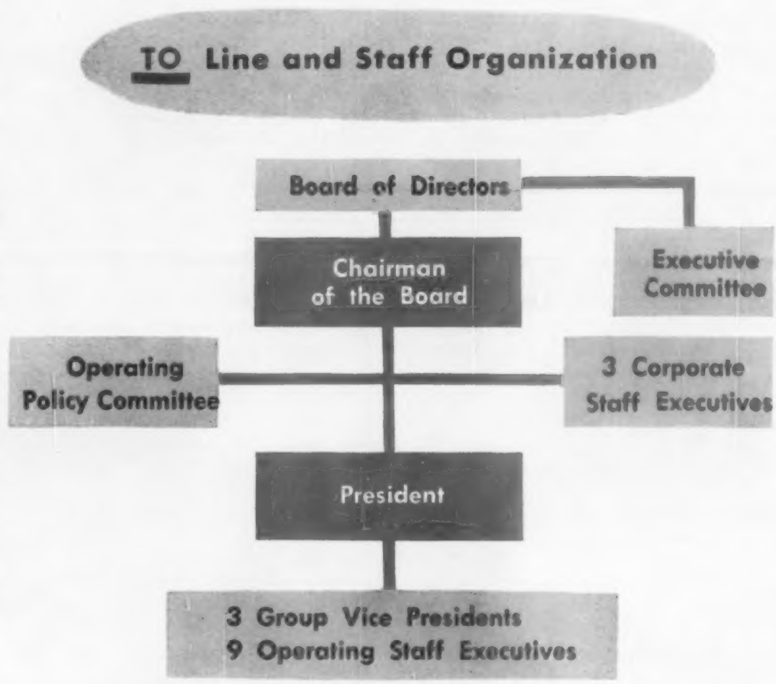
II. Management Overhaul

Humphreys' reorganization in the fall of 1957 abandoned the whole system. The executive committee vice-presidents were returned to individual responsibility for departments concerned with their specialized fields of experience and interest. John McGovern, who had been vice-chairman of the last executive committee before the changeover—he was also executive vice-president—became president and chief operating officer.

Wallace E. Cake was named research and material coordinator, H. M. Kelton became finance vice-president, Chester J. Noonon took over direct responsibilities for marketing and Howard H. Hawks, whose early years had been spent in the tire division, took on special assignments. The last two vice-presidents have since retired.

At the same time these changes went into effect, Vila got his newly created job as a group vice-president and E. A. Luxenburger became group vice-president of tires, footwear, and mechanical goods. Last year the tire division, which accounts for almost half of U. S. Rubber's sales, was split off as a separate "group" under P. C. Rowe—the only top executive pulled in from the outside during the entire reorganization.





• **Reducing Top-Heaviness**—Among a variety of other measures to increase the effectiveness of U. S. Rubber's top management was the reduction of the number of executives reporting to the president from 22 to 12. In addition, the finance committee was replaced by a new executive committee of outside board members. Seven other board committees were eliminated and their duties assigned to individuals. One new body—the Operating Policy Committee—was set up to advise the chairman and president on production and research and development.

With the shift in management, the board of directors shook up its own makeup. Old executive committee members were dropped and limits were placed on the tenure of retired U.S. Rubber executives on the board. In 1957 there were only six outside members on a 21-man board. Today there are eight out of 14 from outside the company, and eventually the chairman and president will be the only insiders sitting on the board. Retained, however, are two board members with ties to historical du Pont stock interests.

Although U. S. Rubber's top brass seems to believe enthusiastically that the management overhaul was a great

Well, how do you find water?

With water tables going lower, and contamination of rivers and streams increasing, the problem of suitable water supply for a new industrial plant grows more and more complicated.

New York Central's Industrial Development Department has prepared a new booklet which reviews the many points you need to check in considering a possible water source.

While water is generally plentiful throughout New York Central territory, you will find Central's water experts most helpful in finding the right water for your particular need. Mail this coupon today. No salesmanship, just helpmanship . . . Courtesy of the Central.

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Otto W. Pongrace, Director of Industrial Development
Dept. C, New York Central Railroad
466 Lexington Avenue, New York 17, N. Y.

Please send me a copy of your new booklet, "Water, How Much—And How Good".

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NEW YORK CENTRAL SYSTEM

ROAD TO THE FUTURE

CHEMICAL engineer Vila takes interest in technical side of operations. In background is synthetic rubber reactor.

success, they cannot prove its value in dollar and cents. Company sales, earnings, and return on investment have increased in the last three years, but its difficult to tell how much of this is due to improved management organization and how much to the business climate itself. There are proofs, however, that don't make obvious changes on balance sheets.

• **Quick Decisions**—The most dramatic change is the increased speed with which decisions are made, as testified to by executives on all levels of management. Wallace Cake, the research and development vice-president, likes to cite the case of a new tire press machine costing $75,000 that was hauled into his laboratory a month after he asked for it. Several years ago, a similar machine wasn't delivered until two years after it was requested although Cake himself sat on the committee.

In an important test of quick action on a larger scale, the new management decided at the beginning of the 1957-1958 recession to close down the company's old Fort Wayne plant. Within a few weeks, the plans were approved and the machinery started for abandoning this uneconomic facility. Veterans of the old executive committee say such a step could have taken a year under the old system. Some feel that at least one member of the old committee would have had a soft spot in his heart for the old plant and its demise could only have come about through rather long wrangling and perhaps needless compromise.

III. Looking Ahead

When George Vila officially takes office next month, he is unlikely to sit quietly atop U. S. Rubber's revised man-

VILA stands before Naugatuck (Conn.) chemical plant where he worked as head of U. S. Rubber's Chemical Div.

agement structure and admire the improvements of the last three years. He'll carry with him to his new office a looseleaf notebook called ORG—for organization—that is already full of management ideas. Most of them seem to center around the need for getting more centralized planning for a company that operates through highly autonomous divisions. Here are the main areas that he thinks are in need of some improvement.

Intracompany communications are not so good as Vila wants them. "After the executive committee was thrown out," he says, "the top executives may have gone too far in the other direction by keeping apart." He aims to correct the situation by arranging meetings between division managers, staff executives, and the top brass to swap information and ideas—possibly over informal luncheons.

Interdivisional business methods need looking into to insure that the flow of materials and services within the company is as economical as possible and that each division is getting its proper credit or blame for over-all corporate sales and earnings.

Executive training will get a boost. Vila is enthusiastic about a program to spot promising young executives that went into effect two years ago, but wants these men to get experience in several divisions. Vila thinks this is necessary if the next generation of top executives is to have the proper companywide outlook.

In specific areas, Vila will move to cut down duplication between work being done on both staff and divisional levels. And he also wants the staff departments to do more real trouble shooting.

• **New Corporate Image**—Public rela-


NEW FROM KODAK
VERIFAX SIGNET COPIER MODEL B
VERIFAX BANTAM COPIER MODEL B

SPECIAL TODAY—Steel and Soda

Just 150 years ago a pickle maker named Nicolas Appert developed a "canning" process to supply Napoleon's armies with better vegetables. The American container industry today helps to provide us not only with better vegetables, but with floor wax, gas-powered toothpaste and soft drinks as well. And they've given us such a bargain in the sturdy tin-plated steel can that we can afford to throw away enough used cans every year to reach, end to end, twice the distance to the moon.

Nearly every product made of steel is a better bargain today than it was just 10 years ago—let alone in Napoleon's time. Design, production efficiency and materials—all have been improved in these 10 years, all have become more specialized. The electrolytic tinning line in J&L's Aliquippa (Pa.) Works (behind the symbolic supermarket) does just one job but does it well—it imparts a coating of tin to steel strip to make better "tin" cans.

In the last important decade, Jones & Laughlin has invested about $700 million in new plants and new equipment like this tinning line to give all industry the improved steel it demanded. J&L, today, is a leading source for a great number of standard and specialty steels—tin plate for the container industry, stainless steel for the aviation industry, sheet steel and bars for the materials handling equipment industry and countless other specialized steels for countless other specialized industries.

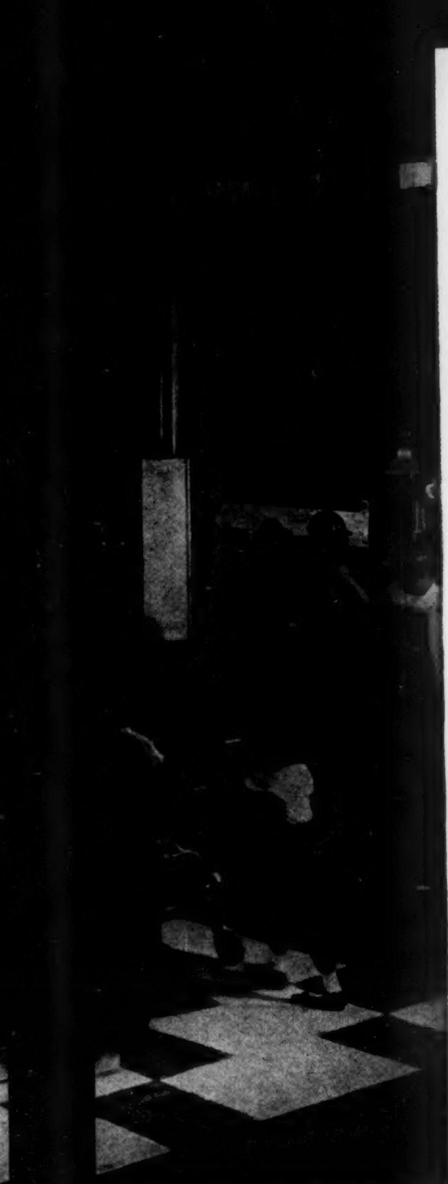
Better products get a better start—with Jones & Laughlin steel.

Steel

This Steelmark identifies the better value of products made of steel. Place this mark on **your** steel products—and look for it when you buy.

Jones & Laughlin Steel Corporation

PITTSBURGH, PENNSYLVANIA



CONTAINER

Soda, soup, sundries, even precious military instruments and documents, are now protected in sealed cans. J&L has invested over $50 million in the last 10 years – including a new continuous annealing line this year and a new electrolytic tinning line early next year – to make more and better tin-plated steel for more and better tin cans.

MATERIALS HANDLING EQUIPMENT

J&L now supplies literally hundreds of different grades and shapes of steel to the builders of materials handling equipment – hot and cold rolled sheets for housings; hot rolled and cold finished bars; high-strength steels; wire rope, and many others.

J&L STEEL

AVIATION

It takes the strength and corrosion resistance of stainless steel to meet the reliability requirements of today's jet engines. J&L's shipments to the aviation industry are typical of the increased demands of all industry for specialized steel – and of J&L's ability to meet those demands with better steels.

. . . Vila aims to give Goodyear and Firestone a harder battle for the replacement tire market . . .

(STORY on page 100)

tions is another area Vila expects to hit hard. He wants to publicize the fact that U. S. Rubber is a widely diversified company that will come near the $1-billion sales mark this year. He feels that people don't realize that, besides being the third biggest tire builder, U. S. Rubber stands well up in the chemical industry (about 25th), is a major textile producer, and has about 30% of the waterproof and sports footwear market. Apparently, Vila has his work cut out for him in this job, for a recent consumer survey by a competitor showed U. S. Rubber to be the least respected of the big four rubber companies.

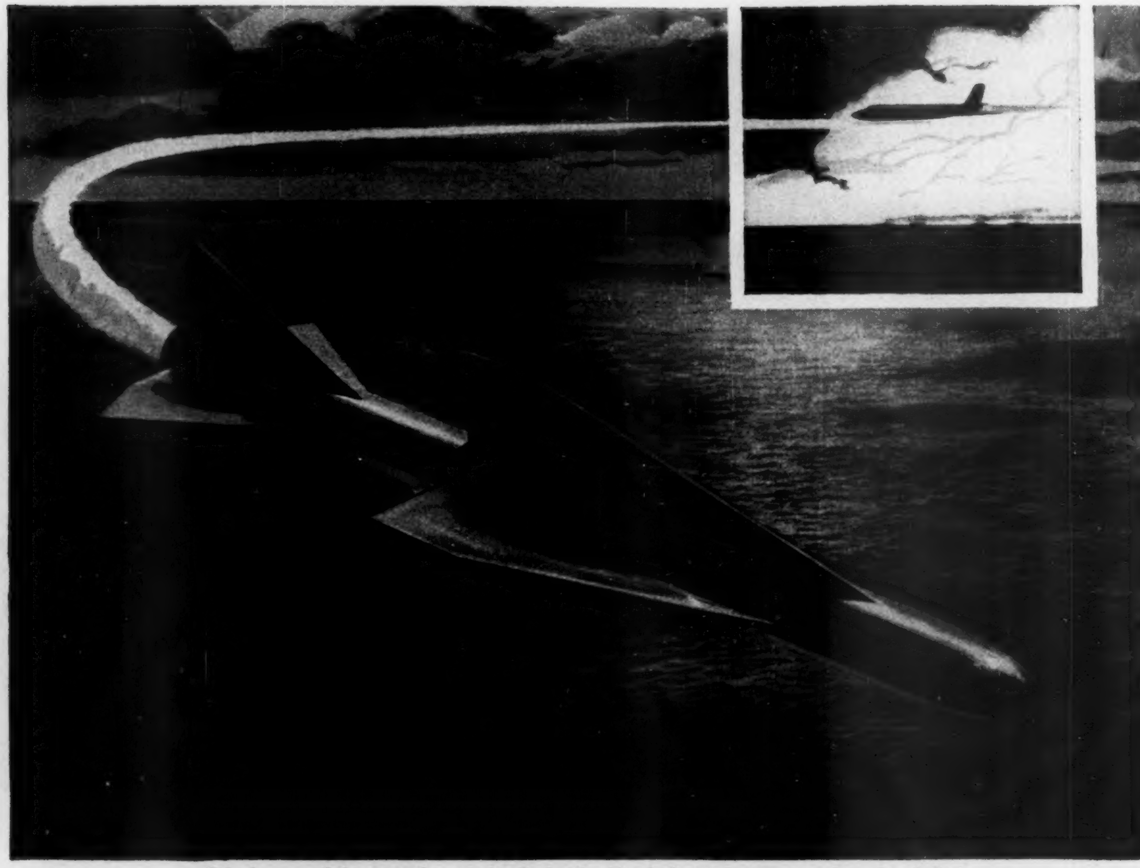
Vila is aiming to give Goodyear and Firestone a harder battle for the replacement tire market, which now takes about one-third of U. S. Rubber's tire production (the rest is split equally between private brands and original equipment—mostly on General Motors cars). To increase sales in the replacement field, Vila will speed up the company's program of opening retail tire stores.

U.S. Rubber got back into the replacement field last year after a 20-year lapse (BW—Apr.16'60,p55), and about 45 stores will be in operation by the end of this year.

U. S. Rubber will also continue to expand its other product lines under Vila. But he intends to work hardest on products already in the catalog for he "sees no new fields that will make us grow as fast as we can in our own business and in whatever our research turns up."

Vila thinks business philosophy is best summed up in a book given him by his father when he was still in grammar school. The book, Russell Conwell's famous Acres of Diamonds, tells about a young man who sold his family farm because it had no future and wandered about the world seeking his fortune. When he returned, old and poor, to the old homestead, he found that the new owner had discovered diamonds on the property and was rich.

"I read that book dozens of times when I was a boy," says Vila, "and I think it applies to everything one does. Why, in every division there are things we can do better than we do now." And he thinks that if U.S. Rubber were to run around looking for new fields in order to grow, "it would be just like going out to the racetrack." END



In Management

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Man, Not Job, Is Measure of Pay
In Briton's Yardstick for Executives

The theory that executive pay should be set for the job instead of for the man is all wet, in the opinion of George Copeman, who conducts the survey of British executive salaries commissioned by the British magazine Business.

It's impossible, Copeman says, in a pamphlet distributed by the magazine, to compare the importance of jobs done by executives and professional employees in different departments at similar levels of authority. Such efforts, he thinks, "are bound to be both futile and phony." Actually, according to Copeman, salaries tend to have "a regular rate of growth which is related to the background and personal abilities of the salary holder and is far removed from the old medieval concept of a static craft rate for the job."

Copeman suggests plotting each individual executive's rate of "personal salary progress." **Under the age of 40 or so, the executive should get fast or slow raises "according to the speed with which he knuckles down and masters the tasks put before him. Above 40 or 45 . . . the best incentive includes a share in the proprietorial income."**

Any unfairness in this system, Copeman argues, will be corrected by events. If the executive is underpaid, he will leave. If he is "mistakenly promoted well above his true worth," he will fail and probably get fired.

• • •

Automation Means Gains for Foremen
And Maintenance Men, Executives Say

More chiefs and fewer Indians has been the trend in American industry for some time. Theorists have been predicting an acceleration of that trend as automation takes over in the plant. Now a University of Colorado survey, reported in the current issue of the Academy of Management's Journal, **has checked the views of the men presumably most likely to know—top manufacturing executives of major companies**—and they agree with the outside experts.

Factory automation hasn't yet gone far enough to provide any definite proof. Out of 210 big companies whose manufacturing heads replied to the survey, only one-fifth reported that they had reached a stage of technological progress that even closely approximated the "electronic ghost" level, where everything operates by remote control with hardly anyone in sight. And that approximation was limited to a small part of their total production.

But **there was substantial agreement between the executives who had had experience with automation and those who had not.** Most of them felt that automation generally reduces the size of work crews, thus boosting the ratio of supervisors to workers, and that it also increases the proportion of indirect labor, particularly maintenance technicians, in the labor force.

The supervisor's job is a bigger one under automation, they said. He has just as much direct contact with the workers as before, he has to work more closely with other supervisors, and his responsibility is greater. **That suggests that the foreman may be about to regain some of his lost authority; his work will be more like that of middle management.**

Does this pose a threat to the middle managers? The manufacturing executives didn't think so. Most of them doubted that automation would reduce the number of levels of plant supervision.

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To the Scientist, a Colleague's Opinion
Carries More Weight Than His Company's

Scientists are hard for industry to handle because their system of "colleague authority" clashes with the corporation's system of "executive authority." That's the conclusion of a study of the scientist in American industry, published this week by Princeton University.

By "colleague authority," the report means the opinions of others in the field. **These judgments are often more important to the professional employee than his boss' opinions are.** That's what makes it hard for the scientist to adapt to the atmosphere of executive authority in an industrial laboratory.

After an intensive one-year study of life in a corporate research laboratory, the researcher, Dr. Simon Marcson, acting chairman of the department of sociology at Rutgers University, found it easier to identify the problem than the solution. **The answer, he thinks, lies in some sort of blending of the authority systems of corporate management and the universities.** He offers no formula for the blend, although he does endorse the idea of paying and titling scientists on a ladder separate from but equal to the one used for administrators.

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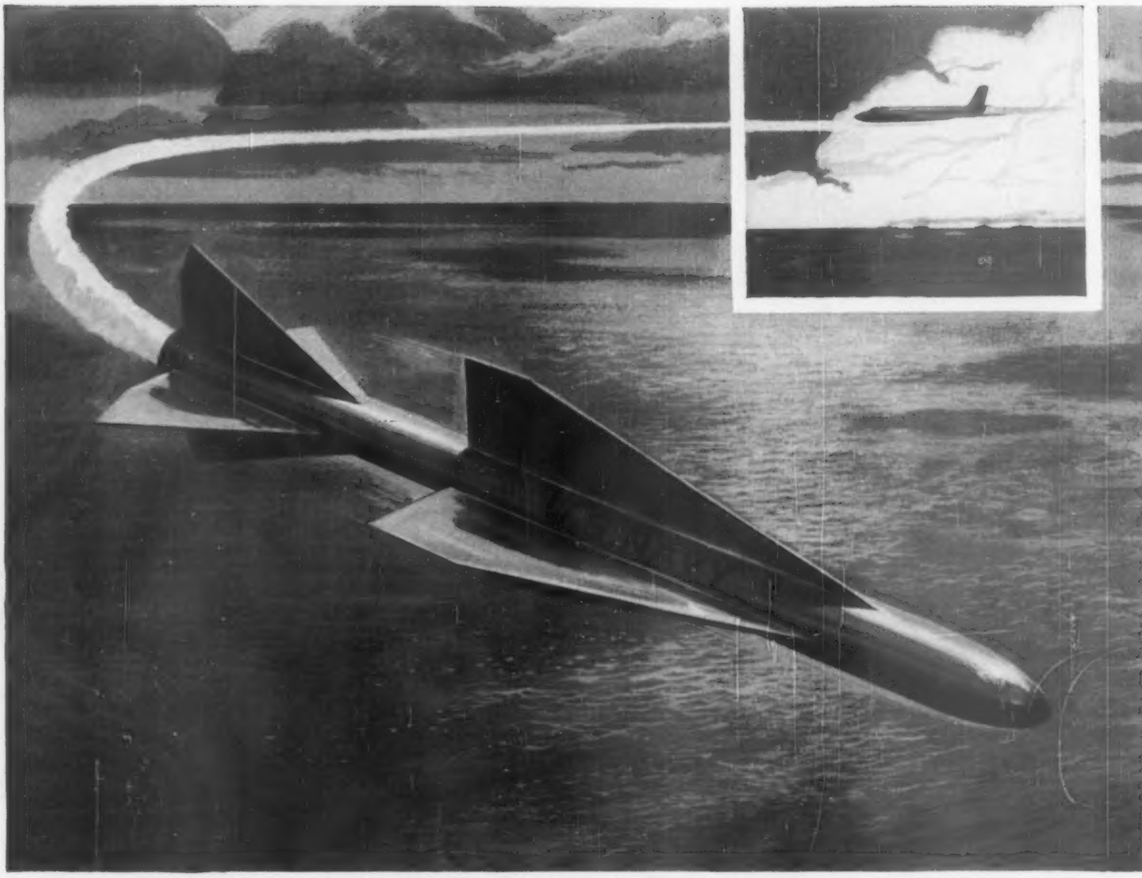
Management Briefs

The board of the newly merged Erie-Lackawanna RR picked its officers this week. As was expected (BW—Oct.8'60,p62), Harry W. Von Willer, 64-year-old president of the former Erie Railroad Co., got the top job; he will be chairman, president, and chief executive officer. However, since Von Willer is near retirement age, he probably will be succeeded in the next year or so by the former Delaware Lackawanna & Western RR president Perry M. Shoemaker, 54, who was made vice-president and chief administrative officer.

New president and chief executive of Smith-Corona Marchant, Inc. is Emerson E. Mead. He succeeds Elwyn L. Smith, 66-year-old son of one of the founders, who retired from active management to become chairman of the board's executive committee. Mead, 43, formerly was executive vice-president. He joined Smith-Corona in 1956 when it merged with Kleinschmidt Laboratories, of which he was executive vice-president.



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FINANCE

Those Fat Profit Margins Abroad

- U.S. companies find their overseas operations providing an ever-growing proportion of their earnings.
- Oil industry profits, the biggest single factor, have been slipping sharply since 1957.
- But manufacturing companies, making up a quarter of the total, have been climbing for three years.

International Business Machines Corp. this week cranked out an eye-catching third-quarter earnings report. It shows that, on only a $60-million increase in sales, the company has boosted profits by $10-million from the $109-million of a year ago.

This performance reflects IBM's success in maintaining a profit margin in domestic operations that not many companies can match. It also reflects IBM's lush profits from foreign operations.

The company's third-quarter performance only continues its growth of foreign earnings. In 1959, the IBM World Trade Corp., which handles most of the company's overseas business, earned $40-million on a gross of close to $300-million. After setting aside funds for reinvestment abroad, World Trade remitted $10.3-million toward IBM's total net of $145-million. In the first nine months of this year, IBM derived another $10.3-million, before taxes, as income from World Trade.

• **Lure of Travel**—This is one example of the new role that foreign earnings are playing in U.S. business. As companies are lured abroad by fast-developing markets, opportunity to compete, tax benefits, and high return on investment, foreign earnings account for an increasing share of profits.

This year, with a slowdown in business at home, foreign sales and earnings make up an even higher proportion of the total. Caterpillar Tractor, for example, reports that its U.S. sales were down nearly $50-million in the first eight months—but that its foreign sales (now 45% of Caterpillar's volume) had climbed almost enough to offset the domestic slump in sales.

• **Billions Overseas**—That foreign subsidiaries are paying off for U.S. companies can be seen in the new data on investment abroad prepared by the Commerce Dept.'s Office of Business Economics (BW—Oct.8'60,p158). Last year, earnings of direct-investment enterprises reached $3.3-billion, down from $3.5-billion recorded in Suez-1957 but a $300-million increase over 1958.

Payments to the U.S. from dividends, interest, and branch profits totaled $2.2-billion, about the same as in 1957 and slightly above 1958.

Some $1-billion was retained abroad for reinvestment, about par for the past few years. U.S. tax law permits the deferral of taxes on income from foreign subsidiaries until the money is finally remitted to the U.S. Overseas profits can be reinvested in foreign operations without paying taxes on them. This has led to a mushrooming of "tax-sheltered" subsidiaries in countries such as Switzerland, which pile up earnings for investment in the Common Market area.

What's more, licensing fees brought in another $300-million to U.S. companies and their foreign subsidiaries, and income from portfolio investments totaled another $467-million.

• **Shift in Industries**—Up to now, earnings from abroad have fluctuated chiefly with the state of the petroleum industry. Oil earnings still account for about half of the income from abroad, so that when oil profits dropped sharply in 1958 and early 1959, the loss cut deeply into total foreign earnings.

But profits of manufacturing companies—which now account for about one-fourth of the total—have been climbing rapidly since 1957. Unless the oil industry runs into another extraordinary year like 1957, petroleum profits may tend to remain fairly stable for a while, leaving manufacturing profits to determine the ups and downs of foreign earnings.

Other industry segments are still small. Trade and distribution companies, growing in importance, still account for only $300-million in profits. Public utilities account for $110-million; earnings of agricultural companies, at $50-million, have slipped from earlier postwar years.

In a geographical breakdown, the Latin American countries and the Middle East, major oil producers, brought in $600-million of income in 1959, substantially less than in 1958; higher mining profits in South America helped offset the decline in oil profits there. But Canada and European countries benefited from higher manufacturing receipts.

• **Big Foreign Earners**—More impressive than those over-all figures are foreign sales, earnings, and investment return of individual companies.

H. J. Heinz Co. earned more than two-thirds of its total income overseas last year—or $8-million out of $12-million. Chas. Pfizer & Co. and Schering Drug earn more than 40% of their income abroad.

Gillette Co. gets 45%—or $14-million—of its income from foreign earnings, although its net foreign assets are only 23% of total net assets. General Motors' overseas earnings last year totaled 14% of its net income, although its overseas operations make up only 9% of the company's net assets. Standard Oil Co. (N. J.) takes in about two-thirds of its net earnings from foreign operations; last year it got a 16% return on net foreign assets, compared with 5% on net U.S. assets.

• **Still Humming**—There's little to indicate that the rate of growth in foreign earnings will slow much in the next few years. Direct private investment abroad by the end of 1959 was $29-billion—up from $12-billion a decade ago—and U.S. dollars keep flowing overseas at the rate of about $3-billion a year.

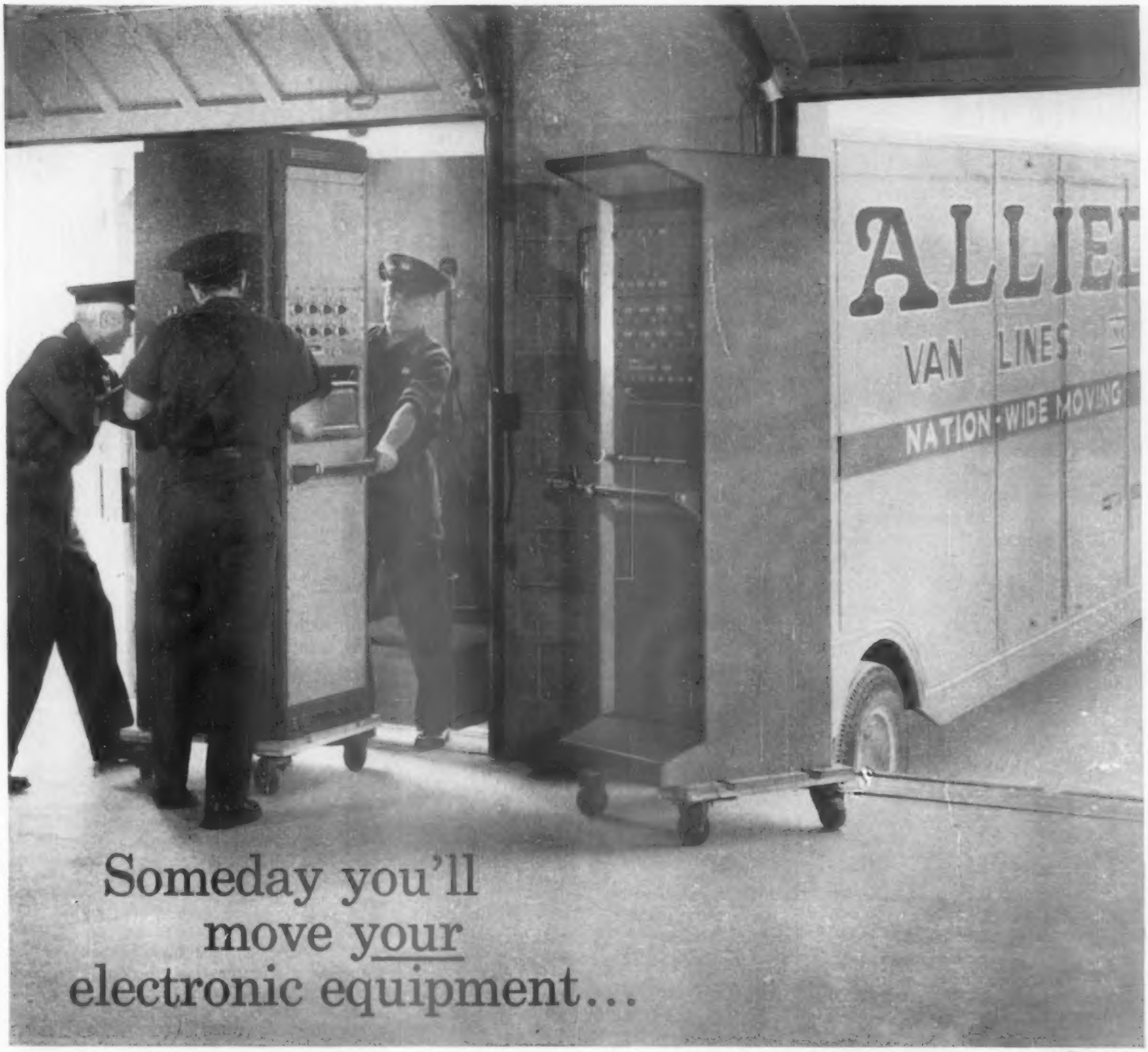
In light of the returns available, there's no justification for a slowdown, say U.S. businessmen, except in rare instances such as where political instability jeopardizes assets. The thriving economies of many foreign countries are opening up new industrial and consumer markets, and there is no reason why U.S. companies should not participate.

Some day, when competition stiffens and labor costs rise abroad, this may all change. In fact, Carl Bimson, president of Arizona's Valley National Bank, says he sees the day not far off when U.S. companies will reverse the trend and prefer to modernize domestic plant further rather than invest abroad. But so far, U.S. companies show no disenchantment with overseas investment.

• **Foreign Perils**—This doesn't mean that doing business abroad is not without its problems.

On a broad level, the rise in capital spending on foreign operations and an accompanying decline in remitted earnings are blamed in part for this country's balance of payments deficit. (As more earnings are remitted, of course, it will improve the balance-of-payments picture.)

Moreover, as U.S. business directs a



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NO. 1 ON THE HIGHWAY

rising share of its capital outlay overseas, it is sure to draw fire from labor unions, who contend that job opportunities will be fewer, and from manufacturing suppliers, who lose business.

There also is always the possibility of a political attack such as Castro's in Cuba or a sudden change in government policy such as Venezuela's 1959 revision of its tax code. James E. Coyne, influential governor of the Bank of Canada, dropped just such a bombshell last week, when he proposed that foreign (chiefly U. S.) corporations that have more than 50% control of well-established subsidiaries should divest themselves of their corporate ownership in Canadian subsidiaries (BW–Oct.15'60,p172).

Coyne said large-scale importation of capital may be useful to an underdeveloped nation that's striving to make a sudden jump. But a country that has reached Canada's stage, says Coyne, can make better progress by "retaining more control over its own destiny."

As business and labor conditions change in European countries, the same sort of argument may be adopted by European leaders.

• **Accounting for It**–From a corporate finance view, the growth in foreign earnings also present problems, partly because of these factors, partly because it provides new ammunition in the argument over how to treat foreign operations in financial statements.

The basic argument is whether or not to consolidate foreign earnings. The trend has been toward consolidation since World War II, but the argument doesn't stop there. If you do consolidate, do you take in all earnings or just those remitted? Where do you give pertinent information–in the balance sheet and income statement or in footnotes, the president's letter, or financial review? And just what is pertinent? There is a disturbing lack of uniformity among big corporations on these points.

If you don't consolidate, how much disclosure do you make of foreign operations? For example, do you show the earnings trend of foreign operations?

You can't really fault either approach as long as the disclosures are adequate. The consolidators think they are taking the broader view; those that do not consolidate believe they are acting in the best conservative tradition.

• **Frank Enough?**–But criticism can be leveled at the lack of uniformity in corporate financial statements, and, what one accountant calls "the lack of frankness by many corporations toward their foreign operations."

Many companies show only foreign assets and liabilities in a bare financial footnote. Others don't list foreign sales. Some, like General Electric,

don't show unremitted foreign earnings. Few companies follow Otis Elevator's practice of showing the trend of foreign income in a financial review, or Standard of New Jersey's practice of almost a full geographical breakdown of assets and earnings.

It seems clear that more light is needed on how to treat foreign operations, and a spokesman for the American Institute of Certified Public Accountants says the subject will be its next major order of business.

• **Accountant's View**—Present AICPA policy recommends that U.S. companies signify earnings from foreign operations only to the extent that funds have been remitted or unrestricted funds are available for transmission. AICPA also suggests that any foreign earnings beyond remitted earnings be carefully considered in light of the facts; it recommends that significant amounts be disclosed but also says that reserves be set up against them to the extent that their realization in dollars is in doubt.

Surprisingly, many companies don't follow these AICPA recommendations as standard operating procedure, but the number heeding its advice on certain items—for instance, reserves—is growing.

• **Consolidating**—When it comes to consolidation, the non-consolidators look on their method as the more conservative. But their view traces back to the days when a dollar was not a dollar unless actually received in New York—and, to some extent, this practice is outmoded.

Before World War II, most companies consolidated their financial statements. But the war—bringing expropriations and restrictions on dollar transfers—forced a reversal of general practice. Now that exchange restrictions have been eased in many parts of the world and overseas operations show more stability, U.S. companies are going back to consolidation.

In defending non-consolidation, though, companies can muster strong arguments—including a reminder to look at Cuban expropriations as an example that foreign earnings are not so secure as U.S. earnings.

• **Cash Register**—One big overseas earner is National Cash Register, which has never consolidated its figures. Like many other companies, NCR takes into its statements only the dividend income remitted from its foreign subsidiaries; to do otherwise, it feels, would be misleading, since it would mean putting into earned surplus funds that were not available for stockholder dividends.

• **Partial Consolidation**—Some companies feel that currency and political instability in some parts of the globe force them away from complete consolidation. They are willing to consolidate Canadian and European subsidiaries, but not others. END

$10 Gets You Into Bank Trust

- **Philadelphia's big Girard Trust starts a common stock fund aimed at the small investor.**
- **The minimum sum is $1,000, but ten-spots can pile up in a savings account till the total is achieved.**
- **Plan is a challenge to other banks, and to the mutual funds that have had low-entry field to themselves.**

Philadelphia's Girard Trust Corn Exchange Bank, 35th in size in the nation, has thrown a challenge to banks and mutual funds: It has started a common trust fund for small investors, at $10 a throw.

Girard believes this is the first such service offered by a bank. Many banks have common trust funds aimed at less affluent investors, but Girard says no other bank has been willing—or able—to reduce the minimum investment to $10.

Under the plan, an investor can put at little as $1,000 in one of two common trust funds—one consisting entirely of common stocks, the other a balanced fund of stocks and bonds. But the bank will accept clear down to $10 from an investor, put it into a savings account at current 3% interest, until the account has run up to the $1,000 minimum.

• **Charges**—The bank charges a fee of one half of 1% for a minimum investment; it will also charge for a statement detailing what taxes must be paid by investors on trust fund dividends.

Girard's move is certain to excite other banks, which up to now have regarded small personal trust business as a "loss leader," at best. And the Girard move means that mutual funds, which have thrived on the small investor, face a new competition. If Girard can match mutual fund costs—one half of 1% management fee, plus sundry other fees (which in many cases are coming down)—then it will be a rugged competitor.

Outside of its new variations, Girard's program works like most other common trust funds. An investor can walk in off the street, sign a deed of trust, and become a participant in a pool of investment funds.

If he dies, the bank pays out his investment and any accruals according to terms of his will. If he is incapacitated, the trustee will pay certain living expenses for him. The bank expects this feature to appeal to older persons—that's a big reason why it is calling its program a "personal retirement trust."

When the investor puts up his money, he receives a receipted deposit slip for the amount; this gives him a check on what he puts in. Every year, he receives a detailed statement, along with the bank's annual report. This statement will tell him what stocks and bonds the bank bought for the investment funds and how much it earned on the investment. Unlike mutual funds, there will be no quarterly statements.

• **Withdrawal**—An investor can withdraw his money at any time. When he does, he will get an adjusted prorata share of the pool. But Girard wants to discourage speculators from entering the fund. If applicants live in the Philadelphia area, they must appear at the bank personally, explain their investment objectives to a trust department staffer. Mail applicants will be asked the same questions.

What Girard seeks is people who want to build an accumulation plan, much like the small investors who now are flocking to mutual fund voluntary accumulation and contractual plans. The bank plans to reinvest all dividends and interest, and no dividend or capital gains income will be paid out.

If Girard can make money on this type of operation, other banks will no doubt fall over themselves to follow suit. But it is still a moot question whether Girard has found the key to the small personal trust business that has eluded so many other banks.

• **Other Tries**—Over the years, many banks have made starts at soliciting small trust business. Manufacturers Trust in New York, for one, initiated an active campaign three years ago, but has since left it rather dormant. Many others have fallen by the wayside because the costs were simply more than they could afford. Those banks that are still in the field have set much higher minimums on new investors.

That the demand is there—and rising—seems clear, from the growth of mutual fund accumulation plans. Girard also has personal experience in its own employee retirement accounts. And Girard thinks it has licked most of the problems.

Cost, of course, is the biggest. One New York trust officer points out that the smaller the trust account the higher the cost—"It's the same servicing problem as you have with small checking accounts," he says.

Girard vice-pres. Robert H. Wilson agrees that the cost of hiring a big staff to do the bookkeeping on the new program would be prohibitive. But Wilson says a computer will do all the work, and he feels this will keep costs in line if the volume is there.

• **Fed Curbs**—Two Federal Reserve restrictions also threaten banks seeking small personal trust business. One forbids banks to advertise the performance of any personal trust. The other requires that any trust fund be a genuine trust fund—not just a means of speculation.

The second requirement was easy to meet. Girard called its new funds "personal retirement funds," and will screen out speculators.

The prohibition against advertising performance may prove to be a bigger drag, particularly since mutual funds can cite performance records, though they, too, are restricted in their advertising. There was no way around this regulation; Girard is observing it in fact and in intent. The bank feels that its best advertising will be word-of-mouth, and that its reputation as a substantial bank will help pull in customers.

• **Performance**—Even if it can beat the cost problem, Girard, just like the mutual funds, will have to have a good performance record to succeed in the long run. In the industry, it is regarded as a solid performer. But like most banks, it won't reveal details on its trust business so you can't tell whether it has done spectacularly well. Probably it hasn't, if Girard runs true to the course of most bank trust funds.

Still, its trust assets have grown to $2-billion. The 1959 report on its diversified pension fund—invested two-thirds in bonds and one-third in common stocks—showed an annual income of $4.19 for each investment unit. This is higher in dividend income than a good number of balanced funds attain.

• **Pension Fund**—Investments made for this diversified pension fund give an idea of the conservative touch of the trust department. As of Oct. 31, 1959, about two-thirds of the total value of the fund was invested in U.S. and Canadian government bonds and notes, utility bonds, and other corporate debt paper. Most of the balance was in blue-chips. A slim figure—0.64%—was in 1,500 shares of U. S. Borax & Chemical Corp. cumulative preferred, valued at $123,750.

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now—stocks or bonds—Girard's trust department leans toward stocks. Says a trust officer: "Despite the condition of the market, we are still buying common stocks. A few months ago, we did not buy some good stocks because we felt they were selling at too high a price-earnings ratio. Now we feel that the prices of some of these stocks are more in line, and we are buying them."

Through August, the bank was selling because it thought prices were inflated. Until two months ago, it was buying bonds, attracted by the rising bond market.

• **Confident**—Girard feels that it will have no difficulty turning in a good investment performance, and it sees a huge potential for personal investment trusts of its kind.

Other banks aren't so sure. In Philadelphia, where Girard is third largest, there are mixed reactions. One bank officer grimaces, and calls it a "promotional gimmick." A few think Girard will fail to beat the cost rap. But Girard also comes in for some praise. A major competitor calls the new trust fund a "great idea, just what you would expect from an aggressive crowd like Girard."

Elsewhere, the reaction is also mixed. Some bankers add that they're not sure whether they would want to compete with mutual funds—for which they act as custodians. But this looks like a nice way of saying that they're not interested in small personal trusts. For it's certain that if Girard's $10 plan—or gimmick, call it what you will—catches on, other banks will move in.

Antitrust Defense

Bicks says his vigorous enforcement of antitrust laws is aimed at preserving free enterprise economy.

Robert A. Bicks, youthful (33) and controversial head of the Justice Dept.'s Antitrust Div., last week attempted to mollify the financial community's opposition to his vigorous enforcement of antitrust laws.

Speaking before the New York Society of Security Analysts, Bicks said that business' annoyance with his merger-busting tactics is ill-founded. He presented himself as a guardian of the free enterprise economy, and said that "in the absence of antitrust, the level of competition might well sink below the minimum [required for a free market]."

Bicks used the purchase by Jersey Standard's domestic subsidiary, Humble Oil & Refining Co., of Monterey Oil's

assets as a case in point. He said it had the antitrusters' blessing, because it was the only way that Humble could hope to break into the "closed" California oil market. The acquisition, in Bicks' view, will increase competition, not lessen it.

• **Tough Policy**—Even with Bicks' conciliatory tone, there is no doubt that Justice—so long as Atty. Gen. William P. Rogers and Bicks are in control, at least—intends to stick to its tough enforcement policy. Bicks is currently serving under a recess appointment. His confirmation was blocked by the Senate Judiciary Committee, along with those of a number of other Eisenhower nominees.

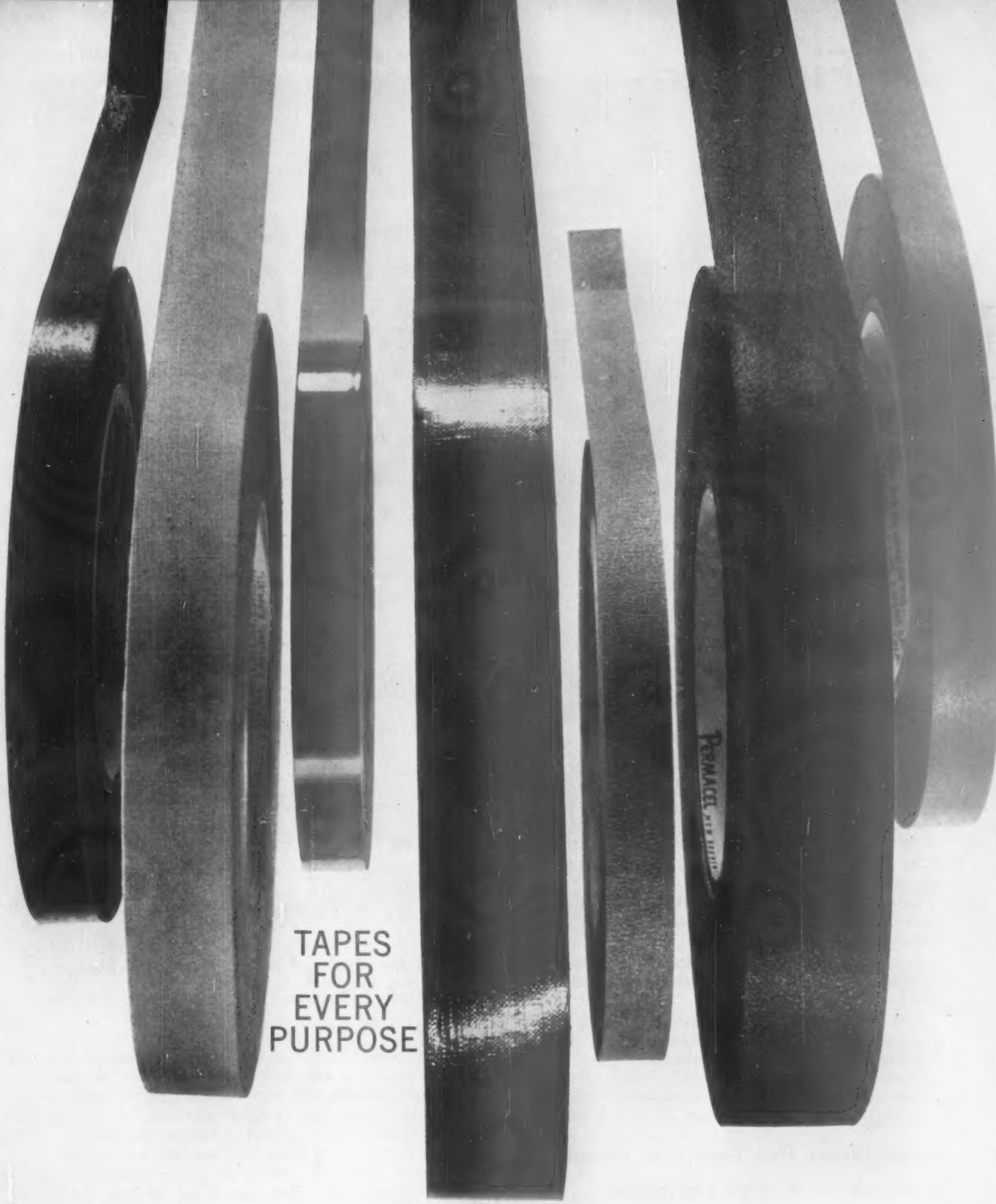
Bicks made his tough attitude clear when he predicted that Justice actions under Sec. 7 of the Clayton Act—which prohibits any acquisition that may substantially lessen competition or tend to create a monopoly—would increase sharply. He ran down a long list of mergers Justice has blocked—Bethlehem-Youngstown, Texaco-Superior Oil, Sohio-Leonard Refineries—in support of his contention that Sec. 7 represents a quick and easy method of antitrust enforcement.

Actions under the Sherman Act that involve breaking up existing companies, Bicks said, present "difficult problems of unscrambling assets long since joined together."

• **Possible Action**—In regard to further possible action under Sec. 7, Bicks revealed that a full-scale investigation is under way into the holdings of Gulf Oil Corp. and Phillips Petroleum Co. in Union Oil of California. (There are rumors—denied by all—that a giant proxy battle between Phillips and Gulf is brewing for control of Union.) Bicks emphasized that no conclusions have been reached in the probe, but he did say that Justice has the power to force Gulf and Phillips to divest themselves of their interests in Union, even if no merger takes place.

• **Banking**—In another area—banking—Bicks said he was ready to ease trustbusting, but only because of the new bank merger law, which gives the Federal Reserve Board increased power over bank mergers.

Bicks says the law, passed last spring, which provides for consultation between Justice, the Federal Reserve, and the Comptroller of the Currency on bank mergers, should reduce sharply antitrust actions in banking. "We're in complete agreement with the Fed," said Bicks. And he indicated that the Firstamerica Corp. case might be Justice's last action in banking. Justice agreed recently to let Firstamerica merge two subsidiaries on the condition that it would eventually sell some of the merged assets and carve out a new bank. END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Insurance Agents Protest Direct Sale Of Accident Policies by Oil Company

A fight is brewing between insurance agents and a new source of direct policy writing competition—insurance offered by oil marketers.

Last July, Standard Oil Co. (Indiana) began offering accident insurance to credit card holders on a direct basis. So far, Standard of Indiana is the only oil company to set up this kind of program, but other marketers are likely to follow suit to meet competition.

This has stirred up the National Assn. of Insurance Agents, which charges that Standard of Indiana's action "is detrimental to the business of insurance agents and not in the public interest." NAIA says insurance can be sold and serviced better by local independent agents, and has urged the oil company to discontinue its offer.

Up to now, the broadside hasn't bothered the oil company. A. V. Fraser, assistant general manager of marketing, says the company is gratified by the response to its offer, and has no intention of withdrawing its program.

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Webb & Knapp and Alcoa Will Put Up $40-Million Development in Manhattan

William Zeckendorf, fast-moving president of Webb & Knapp, the big real estate firm, cemented relationships with his newest partner last week. Zeckendorf announced that **W&K plans to team up with Aluminum Co. of America to revive plans for an office and apartment building development north of the United Nations** on Manhattan's East River. The project is slated to cost $40-million.

Last month, Alcoa took a 40% interest in W&K's Century City project in Los Angeles (BW–Sep.3'60,p43) mainly to promote new uses of aluminum in construction. As in the Century City deal, **the equity put up by the partners will not necessarily be in direct proportion to their 60-40 interests.**

Last year, W&K dropped plans to put up a giant tower on the Manhattan site; it was strained for cash, and financing was difficult. Since then, it has sold off a number of properties to raise funds.

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Avisco Denies That Deal With Monsanto Is Prelude to Its Own Liquidation

American Viscose Corp.'s sale of its 50% interest in Chemstrand Corp. to Monsanto Chemical Co. is stirring speculation that the sale might be the first step toward liquidation of Avisco or its merger with Monsanto. Avisco was co-owner with Monsanto of Chemstrand, which produces nylon and Acrilan.

Under the agreement, **Avisco receives 3,540,000 shares of Monsanto stock**—about 13% of the total outstanding after the exchange. Special provisions are being worked out so that Avisco shareholders, rather than the company itself, will vote the Monsanto stock.

American Viscose officials deny reports that the exchange of its 50% interest for an asset position in Monsanto is preliminary to liquidation. But on merger prospects they reply only that no combination is under consideration "at present."

In any event, **Wall Street analysts expect the immediate effect of the deal will be more competition between nylon and rayon.** Under the old setup, Chemstrand's nylon was in direct competition with parent Avisco's rayon and vice versa. With Monsanto in complete control of Chemstrand, both outfits will be able to be much more aggressive in sales efforts.

• • •

Crowell-Collier Plans to Buy Out Macmillan, Dickers for Radio Station

Crowell-Collier Publishing Co. has announced two moves to up its stake in both publishing and broadcasting:

- **It disclosed plans to acquire the remaining shares of Macmillan Co.,** in which it now has a 53% interest, and merge the two companies. The consolidation will add substantial publishing volume, particularly in educational and textbook fields, to Crowell-Collier's own line of encyclopedia and other reference books.
- **It reported negotiations with Loew's Theatres, Inc., to purchase New York radio station WMGM for about $11-million.** Lawrence Tisch, new controlling stockholder of Loew's, has been selling off Loew's properties recently to go into new hotel investments. Crowell-Collier already owns three stations, has a contract to purchase a fourth, WGMS, in Washington, D. C. Pres. Raymond Hagel says the company eventually hopes to increase its broadcasting interests to the seven radio stations permitted by the Federal Communications Commission.

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Board Members of Lefcourt Realty Resign In Rumored Dispute Over Expansion Policies

Chmn. Samuel Friedland and four directors resigned from the board of Lefcourt Realty Corp., a land development company, as the result of a "major policy dispute" this week. (Friedland is also chairman of the board of Food Fair Stores, Inc., a supermarket chain.) No further explanation was offered. Neither the dissenters nor those still on the board were available for comment.

Lefcourt's expansion policies are probably at the heart of the disagreement. **The faction led by Pres. Arthur Desser reportedly wants to expand Lefcourt development work** in Linda City, Md., where the firm owns a 7,800-acre tract 22 miles southeast of Washington, D. C. **The Friedland group, on the other hand, is believed to favor a slowdown of expansion,** while Lefcourt concentrates on heavy commitments in Florida, some of which involved larger-than-expected development costs.

INTERNATIONAL OUTLOOK

BUSINESS WEEK

OCT. 22, 1960

A BUSINESS WEEK SERVICE

Fidel Castro is in real trouble, much of it economic. While Batista may have stolen much of Cuba's wealth, Castro is surely wasting it.

The U. S. made things worse for Castro this week. It embargoed shipments to Cuba, except certain foodstuffs and medical supplies. It also forbade U. S. ships to carry goods from other countries to Cuba.

The cutoff will hurt, even though exports to Cuba have dwindled in recent months. Shutting off supplies of spare parts for industry, especially the oil refineries, will do the most damage.

Although primarily intended to put new economic hooks into Castro, **the move is also a response to increasing election campaign pressures in the U. S.** Says an Administration official: "Let's not kid ourselves about the domestic political implications—and, after all, any administration in a democracy has to respond to political pressures."

More important, the action warns other Latin American nations that the U. S. will not indefinitely turn its cheek to Castro's brand of anti-U. S. harassment and economic as well as diplomatic injury.

Castro is resorting to desperate economic moves. The hasty nationalization of almost all Cuban and foreign private enterprises last week was a bottom-of-the-barrel action. Castro wanted their cash-on-hand, reportedly worth $200-million.

In the cities, black markets are thriving. Hoarding is general. Cuban officials admit that the country needs $250-million annually in import credits for consumer goods. They've asked the Communist bloc for them but so far little has been forthcoming.

The government can't collect taxes. Practically nobody has any real income anymore. Sugar workers now get 80% of their wages in script for purchases in government cooperatives.

Cuba's inefficient and inexperienced bureaucracy is strangling the economy. Communist bloc technical advisers are adding to the confusion. They have little of the coordination and direction they're used to.

Coincident with announcement of the embargo, the Cubans struck back. They demanded this week that the United Nations consider their charges of U. S. aggression, particularly flights over Cuba of planes from the U. S. Rumors continue that Cuba will demand U. S. withdrawal from its Guantanamo Naval Base.

In Cuba, armed opposition to **Castro's regime is more widespread** than reports filtering through censorship indicate. But the opposition is badly organized and ineffective. Castro is stepping up trials and executions to combat it.

Don't look for the Castro regime to fall any time soon. Despite all its troubles, it still has a firm grip on Cuba. But a knowledgeable Cuban businessman is making marketing and production plans on the assumption that Castro won't be running Cuba at this time next year.

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The Macmillan government may soon ease its tight money policy. London observers expect the British bank rate to be cut—from 6% to 5½%—sometime before Christmas. An easing of consumer credit terms—for autos and other consumer durables—also is forecast.

London, though, has made no decision as yet on the bank rate. The British won't move down unless the West German Bundesbank cuts its rate, which outsiders were expecting it to do this week. By moving first, the Bank of England would encourage, rather than limit, an outflow of funds from London.

London has another reason for delaying any reduction in the bank rate. For some months now the large inflow of funds into London—attracted by the high interest on Treasury bills—has offset the big trade deficit Britain is running. (As a result of the 1959-60 boom in Britain, imports have risen far more than exports.)

Moreover, sterling always suffers a seasonal strain through the summer and early fall, when big payments have to be made for bulk imports such as grain and tobacco. By November, in contrast, London is getting a seasonal boost from foreign payments for wool and other sterling area products.

There are strains in Britain's domestic economy that point to the need for a letup in the money and credit squeeze.

The British auto industry has been hit by shrinking U.S. demand and is overstocked with cars. Most auto producers have been forced either into layoffs or reduced working hours. Producers of domestic appliances also are running into slack demand.

To be sure, even with cars you couldn't say there is a real slump in Britain. The home market is taking more than a year ago, and foreign markets apart from the U.S. are holding up reasonably well.

In a thumbnail sketch, here's the British economy over-all:

Industry is fully employed except for coal mining, shipbuilding, some defense companies, and now autos. A recent industrial survey showed a majority of companies finding it harder to get labor than it was four months ago.

Still, total industrial production has not risen since April, and the expansion of bank credit came to a halt in September.

—•—

Japan this week is still shocked over the assassination of Socialist Party leader Inejiro Asanuma, stabbed last week by a young fanatic. Asanuma whipped up the violent demonstrations that prevented Pres. Eisenhower from visiting Tokyo last June (BW—Jun.18'60,p27).

The immediate effect will be to shave the incumbent Liberal-Democrats margin in November's national election. With the Socialists making Asanuma a martyr, the Liberal-Democrats will retain a Diet majority but probably not get the two-thirds control they had hoped for.

The incident will have little effect on U.S.-Japanese relations. Under Prime Minister Ikeda's administration, they have been better than during the Kishi government.

Perhaps most important, the assassination, like the riots last spring, is symptomatic of political indigestion in Japan. The Japanese have never absorbed the spirit and workings of parliamentary democracy. Events like these encourage the polarization of Japanese politics to the extreme right and left.

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Rail Mergers Get Up More Steam

● Western Pacific board to weigh acquisition bid by Southern Pacific. ICC awaits opposition moves.

● Chicago & North Western gets approval for purchase of the Minneapolis & St. Louis.

● Other amalgamations are in various states of preparation. And the Erie and the Lackawanna have actually settled down to married life.

Railroad consolidation maneuvers, which have been rolling along at a good clip for the past six months, have picked up still more momentum:

• Directors of the Western Pacific are scheduled to meet at week's end to consider the proposed acquisition by the Southern Pacific (BW–Oct.15'60,p42).

• The Interstate Commerce Commission approved the purchase of the Minneapolis & St. Louis by the Chicago and North Western.

• Managements of the Chicago, Burlington & Quincy, Great Northern, Northern Pacific, and Spokane, Portland & Seattle invited officials from 22 unions to a meeting Oct. 27 to hear the operating plan of the proposed merger.

• Norfolk & Western president Stuart Saunders said the final details of a merger with the New York, Chicago & St. Louis (Nickel Plate) are now being worked out. He hopes to file an application in the "reasonably near future."

• This week the Erie and Lackawanna began operations as a single system after four years of negotiations (BW–Oct.8'60,p62).

Of all these events the only one that was totally unexpected was the action of Southern Pacific—and this apparently came as a surprise even to officials of the Western Pacific. They had been aware that blocks of stock were accumulating in brokerage accounts around the country, but did not know for whose benefit. As it turned out, SP's wholly owned subsidiary, Southern Pacific Land Co., has acquired 182,300 shares of WP common, or about 10% of the smaller road's total common shares outstanding (BW–Oct.15'60,p42).

• **Stock Moves**—If the commission approves the SP's application for control, the railroad said it would take over all WP stock now held by the land company. Then it would either exchange SP stock with WP holders on a share-for-share basis, or buy shares of the WP either on the New York Stock Exchange or by means of negotiated purchase.

The Southern Pacific and Western Pacific serve a substantial amount of common territory in northern California and Nevada; the former's Oakland-Ogden line traverses generally the same area as the latter's Oakland-Salt Lake City route. The SP's line built by the old Central Pacific, covers 785 miles, however, compared with the WP's 925. The WP does have one distinct advantage: easier grades and curves.

Both roads haul a substantial amount of perishables eastward over the mountains from California's farmlands with the SP getting the larger share of the business. Both are ideal from an operating point of view. Their business is mostly line haul with a minimum of costly, time-consuming yard work.

The two roads have cooperated closely before. Between the Nevada points of Weso and Alazon, a distance of 180 miles, their lines are so close that they have paired their track; all eastbound trains use the WP, all westbound use the SP.

• **Other Economies**—If the SP does acquire control of the WP there are several further economies that can be achieved. In 1959, SP's eastbound volume exceeded westbound by 5,950 cars per month, and WP's westbound exceeded eastbound by 1,180 cars per month. Control by the SP would allow it to partially offset these imbalances.

The Southern Pacific handles a fair amount of eastbound freight from Oregon that slants down through northeastern California to the main line in Nevada. By using WP tracks it could save 53 miles or two and a half hours on six trains per day, not to mention lower fixed charges on locomotives and per diem charges on cars of other railroads. Similarly, SP's line between Oakland and Sacramento is 45 miles shorter than WP's.

These plus elimination of the usual duplicate yards, locomotives, and trains could turn two currently prosperous railroads into a single richer one if traffic holds up. The Western Pacific, with a total trackage of 1,188 miles, had a net operating income of $5.9-million last year on operating revenues of $52.9-million. By any yardstick—and particularly by comparison with the WP—the Southern Pacific is a giant. It covers 7,984 miles exclusive of two subsidiaries, the St. Louis Southwestern (Cotton Belt) and Texas & New Orleans. In 1959 it netted $46-million on operating revenues of $550-million.

By midweek no objections had been filed with ICC to the Southern Pacific's plan. If any are—and it seems unlikely that an acquisition of this magnitude can go through unopposed—the application will be assigned to an examiner who will then recommend a decision to the commission.

• **ICC Action**—The acquisition of the Minneapolis & St. Louis by the Chicago & North Western emerged from an expedited version of this process before the ICC this week. The economies and service improvements made possible by the unification, the cash benefits and tax savings flowing from it, and the favorable terms on which it may be consummated mean the transaction is "clearly consistent with the public interest," the commission said.

The North Western is paying a total of $20.9-million for the M & St. L, of which approximately $3.5-million will be in cash. Closing date for the transaction is Oct. 31. The acquisition is expected to increase the North Western's net income by at least $4.7-million annually in the next five years.

The M & St. L sold out primarily because its management believed the railroad has too little density and diversity of traffic in relation to the costs of operating and maintaining its 1,400 miles. Serving Illinois, Iowa, Minnesota, and South Dakota, the M & St. L is almost entirely dependent upon agricultural traffic and subject, therefore, to its ups and downs.

The road did its best to broaden traffic and to get badly needed transfer points with other railroads. Several years ago it sought to merge with the Toledo, Peoria & Western. But when the TP&W went to the Santa Fe and Pennsylvania instead, the M & St. L. was apparently stymied.

• **What's Next?**—As a result, the road once known in Wall St. as the Misery and Still Limping, is due to become M.S.L. Industries, Inc., if stockholders approve. It is now looking for new business to buy, and hopes to announce its first acquisition next week.

For the North Western, purchase of

the M & St. L's physical assets will give it cheaper, faster, direct, one-line hauls between St. Louis, and the Twin Cities, and Duluth-Superior. There are also some 20 common points in which the two roads have some sort of overlapping or duplicate facilities.

Rail Rescue . . .

. . . plan puts highway official in charge of strike-bound Rutland in Vermont to get it running again.

The Rutland Ry. rambles some 391 miles through the Green Mts. of Vermont and thence across upstate New York to Ogdensburg. It is normally a quiet, little line. But this week it achieved a singular claim to fame.

Though the railroad is far from being bankrupt, a receiver has been appointed to run it. And the receiver is, of all people, the chairman of the Vermont State Highway Board.

• **Shutdown**—The action grew out of a strike by 100 members of four railroad brotherhoods that has shut down the Rutland since Sept. 16. They struck in protest against management proposals which, they claim, would have abolished the "home terminal" status of two stations in New York. Home terminals are the bases from which crews operate.

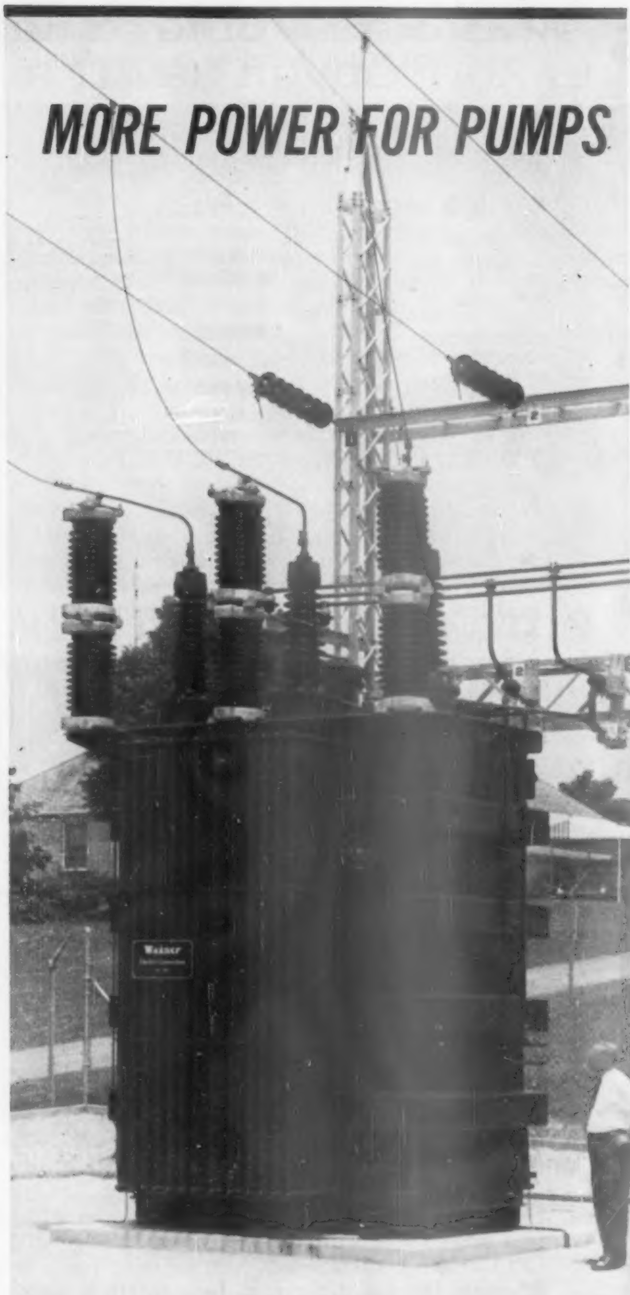
Management has insisted that the home terminal status would not be abolished and has called the strike illegal. It sued in U. S. District Court in Windsor (Vt.) for an injunction and damages, totaling at midweek $492,000.

• **State Steps In**—When it appeared that the trains would not run until the court acted, Gov. Robert T. Stafford called a meeting of state and business officials. And out of this meeting came the plan for receivership.

The state petitioned Rutland County Chancellor Leonard W. Morrison to appoint a receiver. It insisted that the public interest and necessity required the resumption of operations.

Judge Morrison granted the petition and appointed Cleon A. Perkins, highway board chairman, to run the railroad although, as he said, "I didn't quite like the word receiver."

• **Vermont Only**—Perkins will operate the road under the conditions prevailing prior to the strike while the litigation in federal court runs its course. Union officials have already agreed to work on this basis. He will, however, be able to run the Rutland only in Vermont. In New York State the road, which made money in 1955 through 1959 (it's in the red so far this year) is still controlled by management. END



In the Markets

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Stock Prices and Trading Volume Dip As Poor Quarter Earnings Depress Market

Poor third-quarter earnings reports had a depressing effect on investors this week. Stock prices dipped, and trading volume was low. At midweek, the Dow-Jones industrial average was at 587—down 9 points in the past week. The Dow's September low was 569.

Brokers reported that institutional buying was evident only in select stock groups—chiefly domestic oils, whose earnings are climbing, and utilities. But they also reported that there was little outright dumping of stocks. **The consensus seems to be that stocks still haven't hit their lows, but that selective buying is in order for traders.**

Meanwhile, the short-term money market has started to spurt under the impetus of strong corporate demand for Treasury bills; Treasury bill yields dropped sharply and commercial paper rates also were cut.

But the strength in short-terms has not yet spilled over into long-term bonds, where prices remain "sticky" and unsold inventories are still hard to move. **Corporate bond traders marked time, in anticipation of the $250-million American Tel & Tel issue due next week.** (Moody's Investors Service last week finally gave AT&T its highest Aaa rating. Up to now, AT&T, had only Moody's Aa rating; in contrast, Standard & Poor's has long felt the big utility merited its top rung.)

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Christiana Securities Will Split Stock In Merger with Delaware Realty

Christiana Securities Co., one of the nation's highest priced stocks (this week's market: $12,000 bid, $12,500 asked) with an active public market, is due to lose that distinction. **Christiana, a closed end investment company which holds 27% of the stock of E. I. du Pont de Nemours & Co., will be split about 80 for 1** as part of its plan to merge with Delaware Realty & Investment Co., another du Pont holding company.

The split is intended to bring the number of Christiana's common shares—150,000 at present—in line with the number of underlying du Pont common shares owned by Christiana—12.2-million.

In the process, **the split will probably eliminate a good part of the spread that makes it possible to buy du Pont at a discount by buying Christiana.** Each Christiana share now represents about 80 du Pont shares. Buying the du Pont shares directly at their recent price of $185 would take about $14,800. Buying them via Christina would cost only about $12,000. Christina also has stock in General Motors, Wilmington Trust, and Wilmington's News Journal Co.

However, under Federal Judge Walter J. LaBuy's du Pont ruling last October, Christiana can not vote the 535,000 shares of GM it presently owns; nor can either Christiana or Delaware Realty acquire any additional stock in GM or vote the GM shares that du Pont has been ordered to pass through to its shareholders.

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Price of Gold Rises in London As European Investors Buy

Gold fever flared up on the London market this week. The price shot up to more than 253 shillings per ounce. At the current rate of dollar-sterling exchange, this is equal to $35.60 an ounce and amounts to **an increase of 36¢ in three days.** The demand came mostly from private investors in Europe and the Middle East. This is a phenomenal price rise for a market where price changes are often reckoned in the equivalent of hundredths of a cent. In contrast, the U. S. Treasury's fixed selling price for gold is $35.0875.

Thus the London gold price is now well above the point where **it's cheaper to buy gold in New York from the Treasury and ship it to Europe, than to buy in London.** U. S. officials will be watching anxiously over the next few weeks, for signs of an acceleration in the U. S. gold outflow.

But banking experts, both official and private, discount talk of a run on U. S. gold. They point out that, so far, Europe's central bankers haven't lost faith in the dollar. Nor, they say, was the London price rise sparked by the flow of hot money out of the U. S. into London and Frankfurt, so much as it was by weakness in the French franc, and recent changes in Swiss banking regulations. The Swiss have imposed a 1% commission on foreign deposits, and to avoid this charge, investors have been buying gold.

Moreover, bankers say that a big part of recent U. S. gold losses has resulted from Italian buying, as the Bank of Italy switched its policy from holding reserves in dollars to holding them in gold. The conversion to gold, they say, is now almost complete.

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Alleghany's Kirby Charges Murchisons Misused Investment Company Funds

Allan P. Kirby, head of Alleghany Corp. who is locked in a proxy battle with the Murchison brothers (BW—Oct.1'60,p131), has accused them of **using funds from Investors Diversified Services, Inc., for their personal profit while the investment company was under Murchison control, between 1955 and 1960.**

Kirby made the charge in answer to a Murchison suit that seeks to void Kirby's part in a court settlement last December in which working control of IDS reverted to Alleghany from the Murchisons. The suit also calls for the removal of Randolph Phillips from IDS' board. Phillips, who fell out with the late Robert R. Young when Young ran Alleghany, now heads IDS' law and finance committee that Kirby said turned up the new information.

The Murchisons say that the charge is obviously meant to aid Kirby in the proxy battle. But an Alleghany spokesman says more precise details will be forthcoming.

Wall St. Talks . . .

. . . about Pocket Books offering, Managed Funds, Canadian bank branches in Cuba, investment fees.

Pocket Books, Inc., will join the parade of publishing companies going public. Early next year, owners Leon Shimkin and James Jacobsen will make a secondary offering, probably totaling less than $20-million, through White, Weld and Goldman, Sachs.

Channing Corp., which won control of Managed Funds, Inc., after a proxy fight (BW–Mar.26'60,p149), is having second thoughts about its victory. Channing men admit they are "losing lots of money" in running the fund, but predict the flood of share redemptions by MF stockholders is over. Redemptions have been a big factor in cutting the fund's assets to $50-million, compared to a 1959 peak of $80-million.

With Fidel Castro liquidating what's left of free enterprise in Cuba, the Royal Bank of Canada and the Bank of Nova Scotia—both with Cuban branches—stand out like a sore thumb. **But the Castro regime evidently intends to keep the Canadian banks open to finance Cuban foreign trade.** Moreover, the Canadian government says it doesn't intend to cooperate with any U. S. trade embargo on Cuba; the Bank of Nova Scotia, for its part, says it wouldn't have any qualms about financing shipments from Canada "so long as it was a sound banking transaction."

Investment counselors, who normally charge ½% on accounts, are concerned by the **fee schedule announced by Roger Spear** of Spear & Staff, Inc., who has set up a personal counseling service. Spear's fees vary with the type of account—for example, in the $50,000 to $250,000 range, protection of principal accounts are charged ½%, but speculative account fees are 1½%. Some counselors say Spear's minimum of $250 (as against the industry norm of $500 to $1,000) is too low to absorb costs, while his higher range is too steep.

Mutual fund men are fuming over an attack by G. Keith Funston, president of the New York Stock Exchange, on their selling tactics. Funston called for an upgrading of securities salesmen, and an eventual ban on part-time help in the securities business. The big retail sales outfits are particularly incensed, claim their sales help are as honest—and more competent—than most representatives of member firms.

PLYMOUTH AND VALIANT FLEET CARS PAY OFF AT THE PEDAL, THE PUMP AND THE POCKET!

At the pedal—Torsion-Aire Ride makes both these beauties Solid Performers. There's virtually no swing or sway on turns, no "squat" or dive on starts or stops. And both Plymouth and Valiant standard engines are quick, agile, responsive. At the pump—Plymouth's "six" and "eight" are real gas savers—they both won their classes in last year's Mobilgas Economy Run. (Valiant's "six" scored over 27 miles per gallon in this classic, topping its two chief rivals.) And at the pocket—Plymouth and Valiant's solid Unibody means beauty that won't wilt. Welded, one-piece, tough for long life and added resale value later on. See your Plymouth-Valiant dealer for details. Both these low-price beauties will pay off for you in the ways that really count.

61 PLYMOUTH & VALIANT

THE TOP TWO FOR THE MONEY

NEW DEVICE called laser—held by Dr. T. H. Maiman of Hughes Aircraft—amplifies a beam of light until it's a million times brighter than the sun. It can be made simply and cheaply, says Maiman.

DIAGRAM of laser—on its side—shows how red light is passed through ruby rod.

Optics Gets

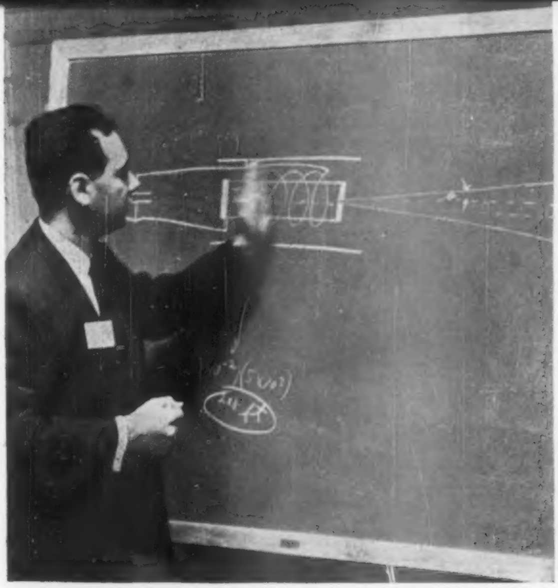
The space age is revolutionizing research in the traditionally slow-moving science of optics. New concepts such as the optical device illustrated in the picture at the left and the blackboard drawings above have brought the science of electronics into the optics lab.

This has set off a new surge in optical research. Scientists who had drifted away to more glamorous, seemingly more fruitful fields, are coming back to the fold. It shouldn't be long, most observers predict, before this surge produces everything from searchlights for communications purposes to giant telescope mirrors for space exploration.

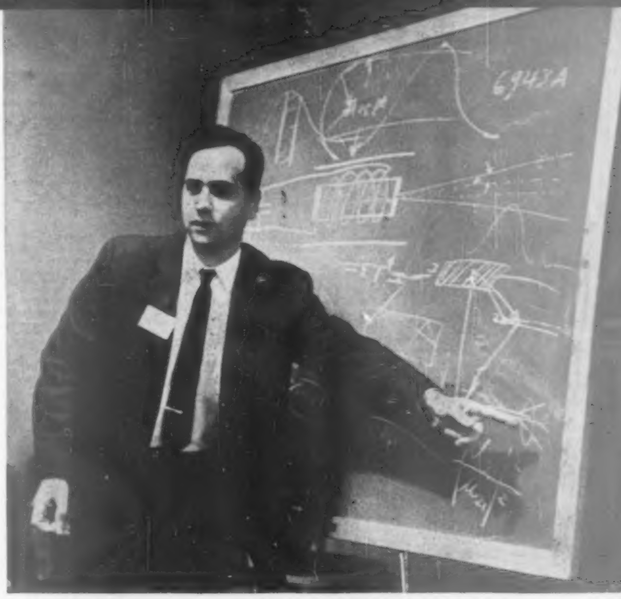
• **No Dividing Line**—The annual meeting of the Optics Society of America last week made these developments abundantly clear. There no longer is any real line by which certain types of optics research can be distinguished from electronics research.

So far, electronics research has undoubtedly profited more from this melding of interests than has optics research. But now this situation seems to be changing. A few working laboratory models of optics devices born of the collaboration are beginning to be demonstrated. Though they are far from perfected as yet, they reflect the image of what is to come out of current optics research.

• **Driving Force**—As in many other fields, the chief driving force behind the current spurt in optics research has been the military demand for better optics devices. The Defense Dept. itself, and all the branches of the military service, have been pushing hard for development of reliable detectors for use



LIGHT WAVE meets "excited" chromium atoms in rod; this makes atoms give off its excess energy, amplifies light.



BOUNCING between silvered ends of rod makes light come out "coherent" with narrow frequency range, high intensity.

Space Age Cue From Electronics

on military surveillance satellites such as Midas and Samos. When these satellites are in operation, manned surveillance systems such as the ill-fated U-2 will no longer be necessary.

For industry, too, recent developments in optical research point to potentially important results. In the pharmaceutical industry, for example, there's hope that a new optical device will soon be available as an improved method of product sterilization. A number of major companies in the chemical industry are looking to optics to provide an answer to the problem of checking on the temperature of chemical reactions without actually bringing an instrument into contact with them.

• **Central Aim**—If there's a single aim common to optics researchers caught up in the new surge of exploration, that aim could probably be described as a renewed drive for greater amplification. Amplification—meaning the addition of outside energy to a signal without distorting it—is a term that has been very familiar in the electronics industry for a long time. It's a word that's equally familiar, though in a different sense, in optics, since a simple lens can be thought of as a sort of amplifier. But in optics laboratories, the word amplification now has taken on new meaning.

Electronics researchers realized years ago that simply intensifying a signal had practical limits, if, at the same time that the signal was increased in volume, outside noise or interference rose too.

In 1955, C. H. Townes, a Columbia University professor, described the pos-

BEAM of coherent light produced by laser has great potential for use in communicating over vast distances in space as well as in earth's atmosphere. There are interesting manufacturing possibilities in pharmaceuticals, chemicals, too.

sibility of constructing a device called a maser that would amplify electromagnetic waves in such a way as to avoid much of the interference problem. The basic principle of the maser, as further elucidated by A. L. Schawlow of Bell Telephone Laboratories, was to utilize the interaction of atoms or molecules with electromagnetic radiation to produce noise-free amplification. Vastly improved radar was one result of the development of the maser.

• **Sound and Light Waves**—Since the wave concept is basic to all physics, the discovery of the maser meant to many researchers that it should, at least theoretically, be possible to extend this new knowledge up past the microwave radar frequencies and into the optical wave band. But most optical researchers failed to relate the meaning of the maser to their own problems immediately. Most of them continued to emphasize optics research in more traditional directions. They went on, for example, trying to find better ways of building better optical lenses.

At Bell Labs, Hughes Aircraft, and a few other places, though, the import of the maser concept on optical research had registered. With company money, Bell and Hughes started research programs. With the aid of the Advanced Research Projects Agency of the Defense Dept., TRW, Inc., of Long Island also launched an attempt to extend the principle of the maser into the region of infrared and heat waves.

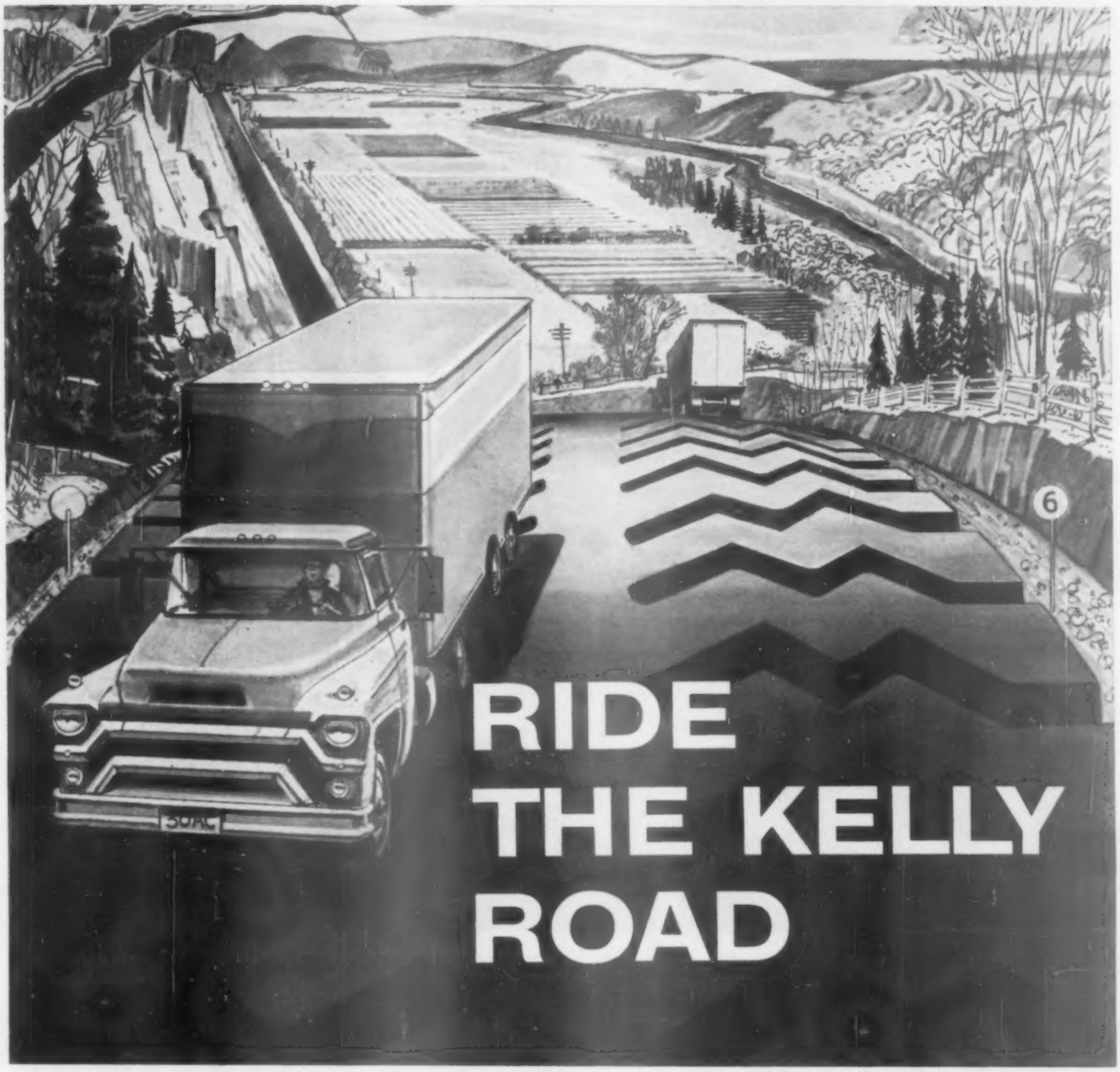
• **Success**—First Hughes (BW—Jul.16'60,p102), and then, earlier this month, Bell, reported success in the quest.

Their development is called the "optical maser," or "laser" (short for light amplification by stimulated emission of radiation). The beam of light that it produces has such a narrow range of frequency—is so "coherent"—that it suggests the possibility of extending present communications technology to the optical frequencies.

Hughes scientists say their version of the laser is so sharply focused that it will spread out to a width of only 200 ft. over a distance of 1,000 miles. Bell scientists visualize that an improved model of their laser could be used to communicate over vast distances in space as well as through long pipes (or wave guides) in the earth's atmosphere.

• **What It Means**—The Bell interest in the laser as a communications device reflects current interest of other electronics companies in this new field of optics, too.

With the need for better means of communicating with satellites (and eventually with man himself) in space, electronic researchers have long realized that they would have to go up beyond the microwave frequencies into the infrared frequencies. But, until the laser



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came, they were concerned about what this move up the frequency ladder might mean in terms of interference.

Now that the laser has overcome this problem, the use of the optical frequencies looks like a veritable paradise to the electronics industry. For one thing, it simplifies many of the problems of preventing detection that are associated with microwave signals. In space, a light beam (either visible or invisible light) is undetectable unless you are directly in its path. So, for military communications the use of the laser principle looks extremely exciting.

• **Devices for Space**—Quite apart from the laser, working models of other kinds of instruments are also starting to appear as a result of the marriage of the interests of optics and electronics. Sidewinder (a Navy air-to-air rocket) is already operating with an infrared guidance system. Midas, the missile-warning satellite, will carry infrared tracking cameras when it goes into earth orbit later this year (BW—Oct.15'60,p120). And although the Midas detectors are shrouded in security, it's no secret that laboratory models of similar detector devices have been known to track a rocket within a foot of its position at a distance of 20 miles.

For Project Mercury, Barnes Engineering Co. has devised an infrared horizon detector that will be installed in the capsule to keep the first U.S. spaceman riding right side up. A similar device will also go on Nimbus, the sophisticated weather-monitoring satellite to keep its cameras pointing toward earth at all times.

For Samos, the second Defense Dept. surveillance satellite, an infrared camera that can shoot pictures at night is also under development. One early version called Vidicon, developed by researchers at RCA, can already detect and register heat differences of .0001C at ground level. Aboard a satellite, Vidicon would probably register efficiently only differences as broad as .3C, and thus would produce fuzzy pictures. But development engineers are convinced they can improve Vidicon without too much difficulty.

More efficiency at higher altitudes could be gained for example, by improving the camera's processing, recording, and transmission equipment. Better lenses and better films (with higher resolution) would help.

Eastman Kodak has already announced glass-like lenses that will accommodate the full usable wave length of infrared waves (2 to 15 microns). Other companies have similar lens developments coming along.

• **Combined Effort**—What's more important than any single development, however, is the fact that electronics and optical research and development men now are agreed that certain phases of detection or information gathering can be done better and more simply at the optical frequency level. This is particularly true, according to Harvard astronomer, James G. Baker, in the case of space-to-space communications.

Everybody now seems to realize this fact. Their combined efforts could make developments come in a hurry.

• **Commercial Uses**—For industry, the fruits of the melding of the knowhow of optics and electronics research are also beginning to show up. For example:

• Infrared Industries, Inc., of Boston, Mass. has a hand-hold self-powered Infraphone (about the size of a home movie camera) that will be going on the market soon. With invisible infrared radiation as the voice carrier, the Infraphone can be used to communicate over distances of hundreds of yards, day or night, indoors or outdoors, provided only that the sender and the receiver are within range of sight.

• American Optical Co. has a new telescope that can photograph an area half a mile across at a distance of 32 miles with such sharpness that objects only 1 in. in diameter can be distinguished.

• American Cystoscope Makers, Inc. (Pelham, N. Y.), has come up with a device called the Duodenoscope that will enable doctors to diagnose without surgery one of America's most common complaints—the peptic ulcer. Similar to a flexible periscope, the Duodenoscope depends on a system of transmitting light around corners by means of a bundle of long fibers of optical glass. It can be swallowed with a minimum of discomfort and a maximum of safety, according to one of its developers, Dr. John H. Hett, a physicist. The Duodenoscope, he claims, makes examination of the stomach and duodenum no more difficult than a check of the tonsils.

• **Still to Come**—Further developments can be looked for from the new approach to optics, too. The laser concentrates its energy in an extremely small point, for example. So two lasers, concentrating on a single point, should theoretically produce something comparable to a superheterodyne—in the form of a third light resulting from the superimposition of the two monochromatic lights.

Astronomers are certain to profit from the new optical surge. The University of Rochester's R. E. Hopkins, for example, sees no reason why it should not be possible to start planning now for telescopes to be placed on satellites. Out of the earth's atmosphere, with little interference to worry about, they could be used to study the surface of nearby planets or far-off stars.

The sun could be used as an energy source for such a telescope. END

The Poor Man's Atom Bomb?

● First stories about German gas centrifuge sounded as though it would mean that even the poorest nation could join the exclusive nuclear club.

● Nearly everyone got the wind-up, with censorship clamped down hard.

● Actually, things aren't that bad. The new method can produce nuclear fuel for power reactors; but as yet it can't turn out the explosive kind.

A piece of machinery called the gas centrifuge produced a worldwide flap this week. For a while it began to look as if the atomic bomb had suddenly become public property, as if anyone who wanted to make bombs merely needed to order a centrifuge from Germany, put in some uranium, and get out the explosive isotope that goes into bombs.

Apparently, nothing that serious has happened. But the facts are complicated enough to produce plenty of confusion.

• **Bomb Stuff**—Natural uranium, as nearly everyone now knows, is a mixture of two types of isotopes—about 175 parts of uranium-238 to one part of the slightly lighter uranium-235. Uranium-238 does not explode. But uranium that contains 90% or more of uranium-235 will make a bomb. The manufacturing problem is to separate the U-235 from the U-238.

During the war, the old Manhattan District investigated many ways of doing this, and it finally settled on the gaseous diffusion plant at Oak Ridge, Tenn. Uranium is converted to a gas by combining it with fluorine. Then the gas is pumped through membranes that contain tiny holes. The U-235 goes through a little bit easier and, after the process has been repeated thousands of times, the 90% concentration is achieved.

The plant required is enormous; it cost about $1-billion; it consumes something like 10% of all the electricity produced in the United States. It's nothing for small nations to try.

• **The Flap**—The series of events that produced the recent excitement began in June:

• Gernot Zippe of the German company, Degussa, obtained a German patent on a high-efficiency gas centrifuge capable of separating gases of slightly different weights, much as a milk separator separates cream from milk.

• Word began to pass around Germany that, according to Zippe, Degussa had built an early model of his centrifuge and that it was separating U-235 from U-238 and doing it at a reasonable cost.

• The U.S. Atomic Energy Commission slapped a "secret" classification on its own rather desultory work on centrifuge separation.

• The U.S. State Dept. asked the Germans to do something about Degussa. Thereupon, the Bonn government asked its patent office to declare centrifuge technology a "state secret."

• Sen. John Kennedy raised the subject in his third television debate with Vice-Pres. Nixon. And Sen. Albert Gore pointed to the gas centrifuge as evidence of the need for a prompt agreement with the Russians to ban bomb tests.

It all sounded pretty frightening.

• **What Percent?**—Actually, what's going on here seems to have no very direct connection with bomb production. Rather, it relates to the different but still important matter of producing uranium with a slightly higher than normal concentration of U-235 for use in atomic power reactors.

The best opinion among U.S. researchers who have been working on the subject is that even the modern centrifuges offer no prospect whatever of producing 90% concentrations of U-235. The Degussa machine is thought to produce about a 3% concentration. By using a lot of centrifuges in series it might be possible to get up to about 6%. Such a concentration is no use for bombs, though it is extremely valuable for power reactors.

• **Simple in Theory**—The centrifuge method of separation is theoretically very simple. Gaseous uranium is introduced into a whirling cylinder. Centrifugal force drives the gas toward the outside of the cylinder—and the heavier the gas, the greater the centrifugal force. Thus, the gas nearest the walls of the cylinder will contain less of the light U-235 isotope than does the gas nearer the center, and the somewhat enriched gas in the middle can be drawn off separately.

The degree of concentration obtained by the centrifuge depends on the size of the cylinder and the speed at which it rotates. The limit on speed, of course, is the strength of the materials of which the cylinder is made. The secret of the German developments appears to be in the use of the new high-strength materials that were unavailable when AEC discarded the idea of diffusion by centrifuge back during World War II.

• **Others Working on It**—Degussa is by no means the only company working on the centrifuge process. In the U.S., General Electric, Mallinckrodt Chemical Works, and Sharples Corp. have been looking at the process for some time. Decker Corp. is developing a machine, and has asked AEC for a license to produce uranium up to a 3% concentration of U-235.

Thor-Westcliffe Research Corp. of New Mexico has obtained U.S. rights to another German centrifuge, developed by Wilhelm Groth of the University of Bonn. Thor-Westcliffe has also bought seven centrifuges from the German Institute of Instrumentation, at a price of $35,000; these will be held in storage in New Orleans until Thor-Westcliffe satisfies AEC on the safety provisions at the plant in which they will be used.

Centrifuge research is also going on in Brazil with three machines purchased from Germany. And Britain's Rio Tinto Management Services, Ltd., is in the field through purchase of an interest in a new German company, Nukem; Mallinckrodt has also purchased a 10% interest in Nukem for $985,000.

• **Secrecy?**—The moves in Washington and Bonn to put centrifuge separation under wraps were allegedly aimed at keeping control over international development of peaceful atomic power. A series of international agreements on power development already have been worked out, and European work is supposed to be concentrated in Euratom—the six-nation organization including France, Italy, West Germany, and the Benelux countries.

Privately, however, U.S. manufacturers are resentful of AEC restrictions. They feel that they are unnecessary and in practice may simply give German companies a technical head start in the potentially profitable business of making cheap fuel for atomic power reactors.

Some U.S. companies, which have already bought patent rights in the centrifuge, or shares in the German manufacturers, claim that the Bonn government's taking over all patents as a "state secret" is of doubtful legality. They argue that it is a seizure of their property. END

In Research

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Russians Say Resistance to Infection Is Influenced by the Lower Brain

The body's ability to produce antibodies against disease germs is influenced by the brain, and therefore changed by mental disease. This theory is now being explored by Russian psychiatrists at the Second Medical Institute in Moscow.

Describing recent Russian research to U.S. doctors at the New York Academy of Sciences in New York last week, Oleg V. Kerbikov of the Soviet Academy of Medical Sciences made these observations:

- Catatonic schizophrenic patients (mental patients whose overt behavior is characteristically nonreactive) almost never develop a proper level of antibody reaction to a vaccination.
- Patients with Parkinson's Disease when their Parkinsonism has been a sequel to encephalitis (in which the lower brain levels are damaged), also produce fewer antibodies in response to innoculations than do normal patients.
- On the other hand, patients with virtually no top-of-the-brain function (idiots) respond almost normally to vaccines or toxins.

Russian researchers conclude that **the lower brain—the part of the brain that maintains body temperature, blood flow, etc.—also seems to be the part of the brain which governs the body's ability to combat disease.**

Verification of the Russian findings will be attempted in U.S. laboratories immediately. If similar results are achieved in this country, it could mean a whole new approach to the control of many human diseases.

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Tiny Radio Plus a Satellite Proposed For Finding the Lost No Matter Where

A satellite system that could spot within half a mile the location of a lost person or vehicle anywhere in the world has been registered with the Patent Office by Space Electronics Corp., of Glendale, Calif. The system, called SARUS for Search & Rescue Using Satellites, brings one more commercial possibility for earth satellites (BW—Oct.15'60,p120).

Dr. James C. Fletcher, president of Space Electronics, says the system is feasible in the present state of the rocket and missile art. **All that would be needed would be several satellites in orbit hundreds of miles above the earth's surface and a subminiature radio to be carried by a vehicle or person.** Only a few milliwatts of power would be required to send an SOS in the ultra high frequency range. A satellite would pick up this signal and locate the source of the SOS relative to its own position by measuring its frequency. As soon as the satellite passed over a ground station it could answer questions on any distress calls it had received. Actual rescue could then be speeded.

Space Electronics says it has been working on the idea for months, using its own funds to develop the theory and to carry out experiments. As a result, it has been permitted to file for certain patents.

A 20-lb. payload would be ample for the SARUS satellite to perform its relay service. And that's well within the range of the lift of today's launching vehicles.

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Mass Test of Enders Vaccine Planned On Measles-Prone Children of Nigeria

Mass clinical testing of an attenuated measles vaccine developed by Dr. John F. Enders of Harvard will start in Nigeria next month. The vaccine will be given to some 4,000 children under the age of two. It has been undergoing study since 1955 with an eye to collecting enough data to clear it for distribution in the U.S. (BW—May2'59,p55).

Nigeria is an especially good area for mass testing a measles vaccine according to Dr. Samuel L. Katz, associate in pediatrics at Harvard. **For some unknown reason Nigeria has a nine-month measles epidemic every year, with an excessively high (10%) mortality rate. Almost all children in Nigeria develop measles before their second birthday.**

In addition to the clinical tests on the vaccine, Katz and his associates will try to find why measles is so rife in Nigeria. Blood samples of those susceptible to the disease will be shipped back to Harvard for study.

The West African Council for Medical Research requested that the Enders vaccine be tested in Nigeria. **A major share of the cost will be borne by the U.S. Army Medical Research Development Command; Merck & Co. will supply the vaccine.**

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Advisory Group Will Help Defense Dept. Find Answers to Ballistic Missiles Problems

A special task force has been set up by the Advanced Research Projects Agency to assist the Defense Dept. in planning for Project Defender—the research program aimed at finding ways to counter operational ballistic missiles. Members of the advisory group include representatives from MIT's Lincoln Laboratory, Stanford Research Institute, Cornell Aeronautical Laboratory, and Willow Run Laboratory of the University of Michigan.

The mission of Project Defender also includes the study of missile behavior and the upper atmosphere through which long-range missiles must pass. It is this very breadth of study that, ARPA says, caused the need for an outside advisory committee. Technology is advancing so rapidly in many of the fields in which Defender is involved that it is practically impossible, with current staff, to keep track of it.

The advisory group will facilitate the exchange of information between ARPA management and researchers in the field. It also will be expected to make recommendations on the various aspects of the ballistic missile defense problem.

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When gun-makers need technical assistance in processing steel, they often call on Bethlehem metallurgists. Our men know their way around in these plants because they have worked closely with such customers for many years . . . just as we lend a helping hand to other steel users who make steak knives, missiles, and automobiles.

BETHLEHEM STEEL

BETHLEHEM STEEL

Tom Swift and his moon rocket

All was ready. Tom called to Professor Damon, "Let's start our high energy, liquid hydrogen rocket engines!"

The professor wiped his glasses and agreed. "Bless my overshoes, let's!"

Fiction? Only the names have been changed. The rocket is really a development of the National Aeronautics and Space Administration, and its name is Saturn. Its first stage will develop a thrust of 1.5 million pounds—twice that of anything the Soviets have fired so far. It is designed to take two men around the moon and back.

You can read the full story in McGraw-Hill's AVIATION WEEK and Space Technology, as covered by Space Technology Editor, Evert Clark.

Clark has kept AVIATION WEEK subscribers abreast of space developments (U.S. *and* Soviet) long before Sputnik I put the international spotlight on space technology. He personally covered launchings of the Atlas, Titan, Thor, Jupiter, Redstone and Polaris missiles—and also Explorer satellites, Pioneer lunar probes, Pioneer V Venus probe and Juno satellites.

From this extensive background, Clark directed preparation of AVIATION WEEK's first special issue on space research in 1958. He has also been responsible for other special issues on the NASA and the Air Force Air Research & Development Command and has written extensively on Soviet space developments.

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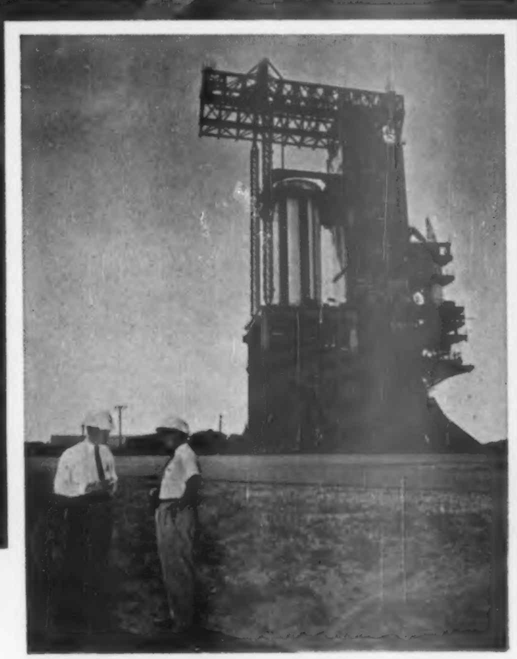
Evert Clark (left) checks technical details for a story of the Saturn with B. R. Tessman, deputy director of the Test Division, Marshall Space Flight Center. A space technology scientist since 1935 in Germany and the U.S.A., Tessman typifies the authorities that McGraw-Hill editors like Clark work with in covering a story. Clark himself has covered international space meetings in London and Stockholm . . . maintains contact with men like Tessman on space research around the world.

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PERSONAL BUSINESS

BUSINESS WEEK
OCT. 22, 1960

A BUSINESS WEEK SERVICE

College fund raisers are out in force now, seeking donations to help cover the $3-billion annual bill for new buildings, higher salaries, and other rising costs. **How much should you give to your alma mater?**

You might take a cue from what business does. Generally, **higher education gets about 25% of total corporate gifts**—and the percentage is rising. A specialist in charities suggests a similar formula: **Split your charity dollar four equal ways**—to your church, higher education, health and social agencies, and miscellaneous groups, such as museums and libraries.

As another guide, look at the list of average tax deductions compiled from Internal Revenue Service figures. These show that **people in the $15,000-$20,000 income range give $601 annually to all charities.** For the $20,000-$25,000 group, the total is $771; up to $50,000 income, $1,137.

Unless you have some pet project in mind, give money without strings attached. (Educators prefer this because they supposedly funnel the dollars into most-needed projects, thus get more for their money.)

Colleges prefer receiving the gift directly—not through some intermediate group such as an alumni association. Of course, **if you want to aid the endowment fund, think in terms of a bequest in your will.**

For donations of $5,000 or more **it's best to talk first with an officer of the college.** He may suggest that you put your money into a specific program at the school. Or **he may mention your matching somebody else's "contingent gift."** (School receives the gift only if it raises an equal amount on its own.) Incidentally, when you talk with a college dean, don't even hint at trying to use your donation to influence the academic program—that won't sit well with him.

But suppose you don't have a specific target for your gift; you just want to help higher education in general. **Some educators simply advise you to pick a lesser known, poor college that needs funds. Or make a gift through Independent College Funds of America,** a nonprofit organization representing 489 private liberal-arts colleges. It has 40 state and regional groups, will spread your money either regionally or nationally. For details, write ICFA, 1296 Broadway, New York 1.

Word of caution: In the past few years, **special "lifetime gift plans" have been adopted by many colleges** (BW—Nov.21'59,p173). Basic idea is that you donate a lump sum, take a partial tax deduction (based on IRS tables), and agree to (1) get interest-income from the principal for life, but (2) give all the principal to the school on your death.

Most recent variation is the now popular "tax-free trust" or Pomona plan. Here your donation is invested in tax-free state and local bonds. Thus, your year-to-year lifetime income is tax-free. (At death, donation goes to the college.)

As a precaution, check with your tax adviser on this plan. There's some worry that the government may clamp down and tax the donor's income.

—•—

Big boat shows at Ft. Worth, Chicago, and over in Paris forecast what's **in store when you start to shop around for a new boat.** You'll find few radical changes in the new models—except perhaps for **more color inside and out.** What you'll notice is a **return to functional elegance** after a fleeting fling at more elaborate craft.

BUSINESS WEEK
OCT. 22, 1960

Both cruisers and outboards are getting bigger, with emphasis on streamlining, speed, and power. Many extras such as windshields and steering lights are becoming standard equipment. **But prices have gone up about 5%.** Marine motors continue to step up electric output for operating speedometers, lights, spotlights, horns, and two-way radios.

Some highlights of the three shows:

• **Fort Worth.** Lone Star Boat Co. displayed **sport boats and cabin cruisers with auto-styled interiors,** complete to side panels; more expensive models have spring seats. Volvo-Penta has a new installation combining inboard and outboard motor features. **An 85-hp. motor** (about $2,000) **can be mounted inside an outboard hull** with propulsion unit attached to back of boat.

• **Chicago.** Motorama Jet offers a **one-cylinder jet outboard motor;** water ejection through horizontal nozzles shoots boat forward ($219). **One-man "submarine" with open cockpit** looks like a bullet with seat cut into it. **Sub is hooked onto your boat.** You take a seat, and down you go—wearing your skin-diving equipment (Fiber Glass Industries, $199).

Aqua-copter (like a helicopter with pontoons) is first pulled through water by a boat. Then, water pressure turns roller blades, thus raising craft into the air at 15 mph. (Capitol Copter Corp., $895). Tailored for fishermen, **smallest motor at show** (Neptune Mighty Mite) weighs 17 lb., has 1.7 hp. (Muncie Gear Works, $79).

• **Paris.** French boatbuilder Arcoa has **a 33-ft. cabin cruiser suited for family travel;** sleeps five, moves at 15 knots with two 100-hp. gasoline engines ($11,700). The Diable, a 23-ft. cruising sloop with **glass-polyester hull and twin-keel for easy beaching,** can make 8 knots with its 161-sq. ft. mainsail and 110-sq. ft. jib ($4,680).

Battery-operated submarine for skin-divers made by Rebikoff comes equipped with camera, electronic flash, dead reckoning controls, and floodlights ($9,200). There's a simpler version at lower cost.

—•—

Duck hunters along the four U. S. flyways should know that this year **it's illegal to kill canvasbacks and redheads.** Low survival of the two species has brought about the first complete closure regulation. **For ready recognition of the 40 wild duck species,** hunters can study the classic book of water fowl identification, **Ducks, Geese and Swans of North America** by F. H. Kortright (Stackpole, $7.50).

To check water-fowl regulations, including **local bag limits and the number of hunting days,** write the Dept. of Interior, Fish & Wild Life Service, Washington, or call your local conservation officer.

—•—

Winter warmup: Top stores are showing cold-weather outfits, especially good for frigid football games. One is a **jacket-and-pants combination of rubberized nylon,** loosely fitted to wear over regular clothing; lightweight, windproof, waterproof ($25).

This season's high-fashion coats include vicuna with natural ranch mink trim ($750); **black wool with beaver collar,** lined with civet cat ($250); **full-length mouton** ($250); and **canvas cloth** lined and collared in Bulgarian lamb ($99). In headgear, you'll see **more "trapper" hats** of long-hair fur ($20), some "jester" fur-trimmed hats ($18), and Tyrolean fur-felts ($12). And look for **fur mittens with deerskin palms** ($13).

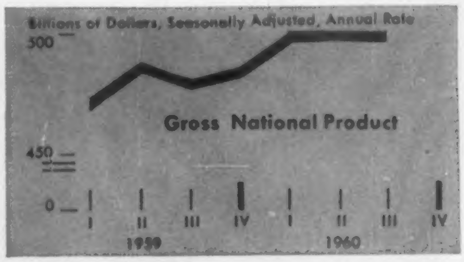
ECONOMICS

Here Are the Instruments for Clocking Business

What It Measures

How Good Is It?

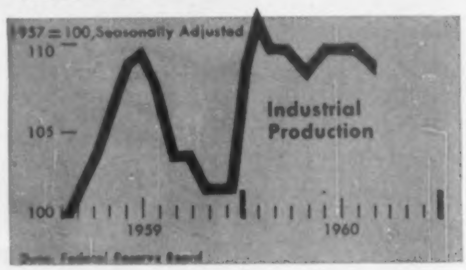
GNP measures the output of all goods and services produced by the economy — or (viewed the other way around) the total income of all producers, including government.



Data: Dept. of Commerce

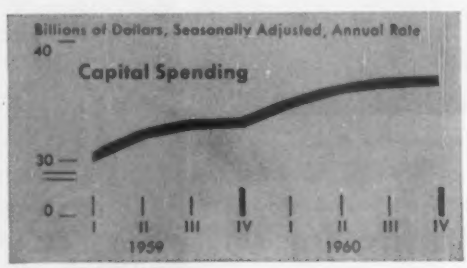
Not up to the minute or sensitive as an indicator — can take six months or more to register change in business trend. Quality of data uneven; early estimates can be off by several billions, though percentage error for total usually less than 1%. Weakest components: small business income, inventories, savings.

FRB Index measures changes in physical output of manufacturing and mining industries, gas and electric utilities.



Includes 207 series, varying greatly in quality — many not based on actual output but estimated from man-hours worked and productivity estimates, or from raw materials consumed. The 1959 revision reduced reliance on man-hour data.

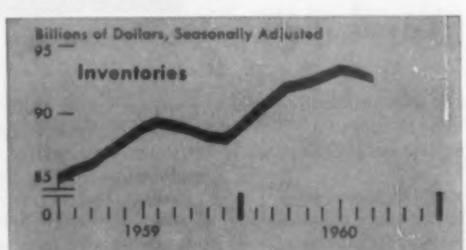
SEC-Commerce Capital Spending survey records business plans for expenditures on new plant and equipment. Later revisions measure actual capital spending.



Data: SEC-Dept. of Commerce

Based on sample of 2,500 companies, projected to total by prior year tax returns. Forecasts for individual industries often way off, but totals pretty good. Since 1945, quarterly forecasts in right direction 3 out of 4 times; annual forecasts missed direction only once — in 1950 (Korea).

Manufacturing and Trade Inventories measure end-of-month value of inventories held by manufacturers, wholesalers, retailers.



Major errors more likely here than in any other important series. Current figures, based on small samples, subject to big revisions. Figure for manufacturing is best; retailing data weak because based on reports only from chain and department stores. Difficult to adjust inventory figures for price changes.

How to Make Sense Out of the

The national economy is—as the philosopher William James said of nature as a whole—a "blooming, buzzing confusion." The purpose of economic statistics, such as those above, is to impose order upon that confusion, to achieve a rational basis for business and government policy.

At a time like the present, when the economy shows softening tendencies—and when a national election may be importantly affected by the economic climate—policymakers stare at the statistics harder than ever.

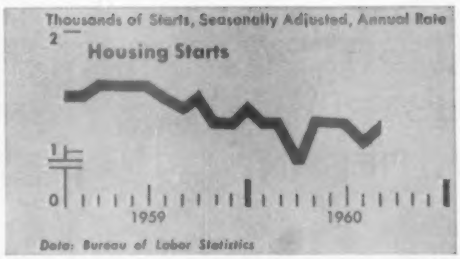
Taken together, these numbers are the instrument panel of the national economy. They are the signals businessmen read to determine whether to boost or reduce capital spending programs, production schedules, inventories. They are numbers investors read to help figure out whether to increase or lighten their stock holdings. And these numbers importantly affect the decisions policymakers at the Treasury and Federal Reserve make to stimulate or curb the economy.

• **Not Equally Firm**—Everybody looks at the same numbers—but everybody reads them a little differently. The

What It Measures

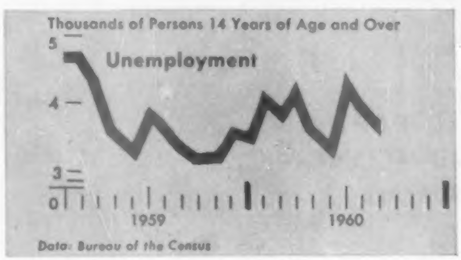
How Good Is It?

Housing Starts data measure number of new housing units — including apartments — on which construction is started each month. Series at right covers private non-farm housing, but data also available on public and farm building.



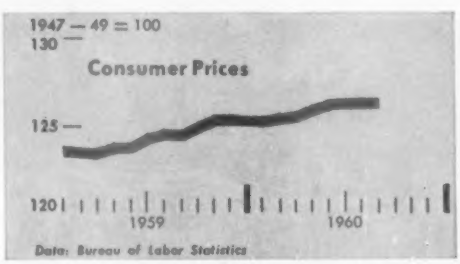
New series for which seasonal adjustment is not yet satisfactory. Some current uncertainty about housing picture may come from this series' erratic behavior. Data mainly from building permits; actual starts calculated on basis of small sample —6,000 to 8,500 building permits.

Census Bureau unemployment series tries to measure the number of people in the work force who are looking for jobs.



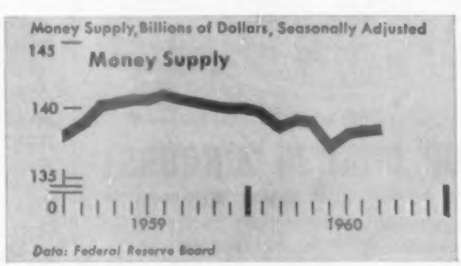
Always a hot number politically. Definition of "unemployment" highly debatable. Employment and unemployment data based on sample of 25,000 — so unemployment data based on only about 1,000 cases. Depending on number unemployed, sampling error can be big as 8%. Seasonal factors difficult to calculate.

Consumer Price Index measures changes in prices paid for consumer goods and services by "typical" urban blue-collar and clerical-worker families.



Probably overstates amount by which prices have risen since World War II by underweighting quality improvements. Probably understates price rises in booms, price cuts in recessions, because it's hard to catch all shading of prices. Sampling error virtually impossible to compute.

The Money Supply — defined as demand deposits plus currency in circulation — is intended to measure cash immediately available to individuals and businesses.



Early data subject to revision — sometimes substantially. Significance of swings may be obscured by role of "near money" — savings deposits, S&L shares, some government securities — and changes in velocity. New York bank deposits extremely erratic because of big role of security market transactions.

Numbers

numbers don't speak for themselves, and they are not "hard" and incontrovertible—all of them are inaccurate in some degree.

Some are much shakier than others. In the case of the consumer price index, for example, the statisticians do not even know what the probable error of the published figure is—because the universe of prices is too vast and complex to permit a scientific system for sampling and weighting.

This is not to say that the consumer price index or the other statistical measures are worthless, or are worse than any other country's economic statistics. On the contrary, most technical experts think the U.S. has the best economic statistics in the world.

The concept of the gross national product, for instance, was an American invention—worked out at the National Bureau of Economic Research and the U. S. Dept. of Commerce in the 1920s and 1930s; the spread of GNP accounting to most other nations is a post-World War II phenomenon.

As the Big Daddy of the economic indicators, GNP gives the best over-all picture of changes in the national economy. What it seeks to measure is not all business and economic activity but rather all activity that contributes new goods and services to the nation.

The distinction is an important one. If, say, one man sells another a $500,000 piece of real estate and takes no profit or commission from the deal,

the addition to GNP is zero. Nothing new was added to the economy; a piece of real estate was simply transferred. But if the seller took a $50,000 profit for his services, then GNP went up by $50,000.

I. Measuring GNP

Thus, GNP seeks to measure all the income from the production of goods and services performed over a period of time. The public generally thinks of GNP in terms of annual rates—a $1-billion rise in business activity over a three-month period shows up as a $4-billion increase in GNP at an annual rate.

In terms of actual activity, even a $4-billion increase in GNP might represent no increase if prices also increased by that amount. At present, a 1% price increase would cancel out a $5-billion gain in GNP (since GNP is running at more than a $500-billion rate).

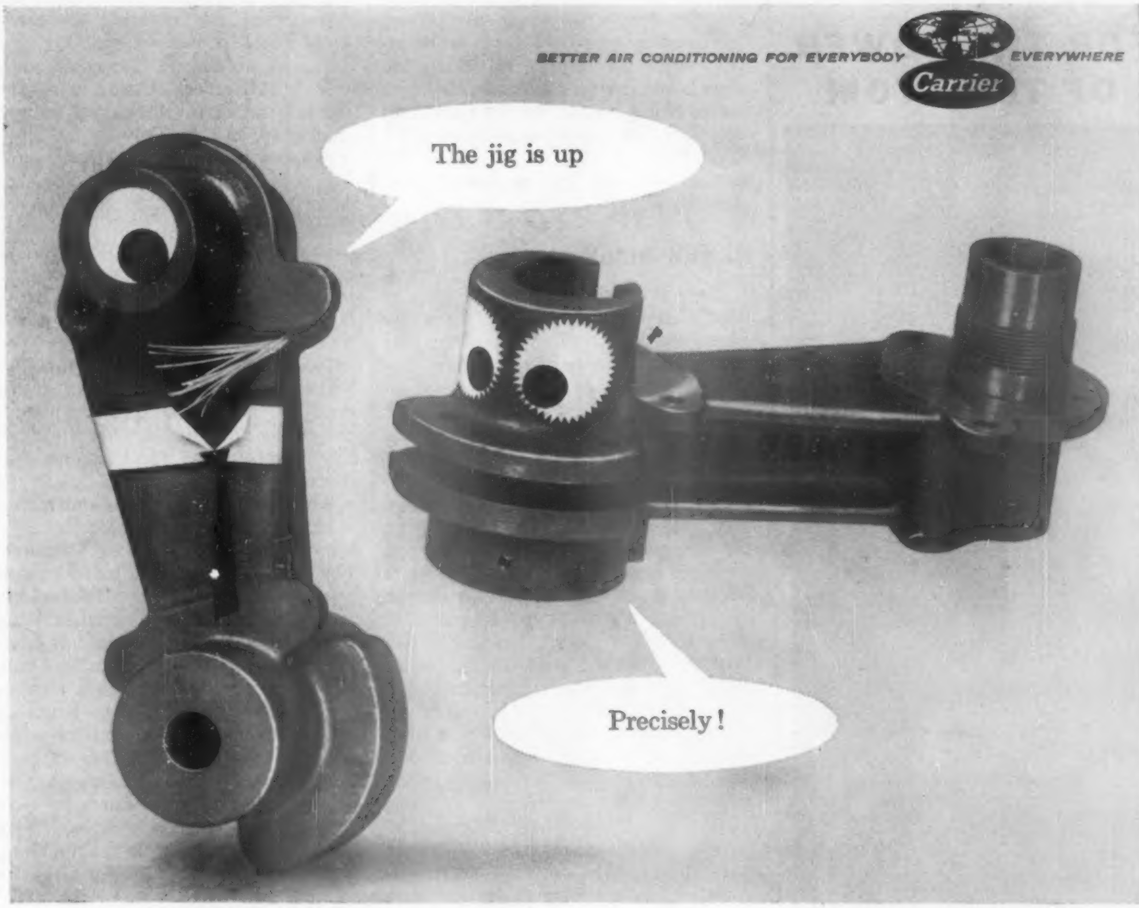
• **Sources of Data**—The figure for GNP is built up like a mosaic from many sources. Gathering and processing the masses of information takes time; this means that a reasonably accurate figure for GNP can be issued only quarterly.

The Commerce Dept. has resisted all pressures to issue a monthly GNP figure. Commerce statisticians argue that a monthly number for GNP could be concocted only at the expense of a big reduction in accuracy. As it is, the initial GNP figure, published by the Council of Economic Advisers a month or so after the end of each quarter, is regularly revised by hundreds of millions or billions of dollars—though the revisions, in percentage terms, are practically never more than 1% of total.

• **Personal Income**—Commerce Dept. statisticians contend that their personal income series, which is issued monthly, gives a tolerably accurate guide to movements in the whole economy. But personal income data are even more sluggish than GNP itself; personal income usually turns down after GNP at business cycle peaks and turns up after GNP at business cycle bottoms.

• **Sizing Up Weaknesses**—A committee of national accounting experts recently gave the U.S. GNP figures a careful going-over. They found that the U.S. "still leads the world in national accounting"; however, as Raymond W. Goldsmith of the National Bureau of Economic Research puts it, our GNP figures are "as good as the primary data and the funds allocated to their processing permit."

The Goldsmith committee found that the weakest data going into GNP were those produced by small business. It said spending more money to get better information about small business



STAR TOOL EARNS 31% ANNUAL RETURN ON CARRIER AIR CONDITIONING INVESTMENT

Is comfort air conditioning in an industrial plant an unproductive luxury—a nice gift to the workers if you can afford it? Or is it a production tool—an investment that actually pays off in increased worker productivity?

The answer is a matter of record in scores of businesses. One of them is the Star Machine and Tool Company of Cleveland, a progressive small company in the precision tool industry.

Star installed Carrier air conditioning in its 20,000 sq. ft. plant in 1952 to stabilize the day-to-day accuracy of machining and produce to the ever-stricter tolerances required by modern industry. "As a result," says management, "we have been able to attain a degree of precision that once would have seemed utterly fantastic."

But what the company did not realize—at the time of installation—is that air conditioning increases the efficiency of men as well as the precision of machines. The annual productivity of Star workers soared 5.1%, absenteeism during summer decreased 14% and labor turnover dropped by 30%.

Taken together—and entirely apart from the increased precision which originally attracted management—these gains in worker productivity are giving the company a 31% annual return. Or enough to pay back the cost in about three years!

Many other manufacturers report similar figures and it is significant that neither the geographical location of their plants nor the type of products manufactured affects the size of their gains. What does determine the profit potential of industrial air conditioning, in almost all cases, is the density of workers in a plant or plant area.

Where the number of square feet per worker is low, the return on an air conditioning investment will be high. For this reason, the most densely populated departments should be air conditioned first in any program that calls for the installation of complete plant air conditioning over a period of years.

There are other yardsticks, too—all described in the booklet, "Will factory air conditioning pay off for me?" which we will send you without obligation. Write for it today. Carrier Air Conditioning Company, Syracuse, New York. In Canada: Carrier Air Conditioning Ltd., Toronto.

was the greatest single step needed to cut the margin by which preliminary GNP estimates would have to be revised after tax returns are finally analyzed. Income tax returns are the main source of information for the final GNP data—but these can't be produced much faster than a couple of years after the fact, when only the economists and statisticians care.

II. FRB Index

To get a comprehensive picture of what's happening to the U. S. economy from month to month, most analysts pay closest attention to the Federal Reserve Board's index of industrial production. Many business economists use it as the key indicator in forecasting the physical volume of demand for their company's product. But economists warn that movements in the FRB index may be a poor guide to the growth of the economy as a whole.

That's because the output of services has been growing faster than the output of goods, and services aren't covered at all by the FRB index. "Looking at the FRB index," says one economist, "automatically makes you a pessimist about U. S. growth rates."

• **Too General?**—An increasing number of economists think that neither the FRB index nor GNP is much good for forecasting purposes. Because of their very broad coverage, they don't give an early tipoff to changes in the dynamic investment sectors of the economy—inventories, capital spending, and construction. Changes in those sectors—and in government spending—generally initiate changes in general business.

In forecasting inventory swings, economists use data on sales and new orders, as well as the inventory information itself. Sales data come from the same sample as the inventory data; new orders figures are collected from manufacturers only. When sales run ahead of orders, a boost in inventories and production is usually just ahead; when orders drop below sales, cuts are in the making. (In August, the latest month for which these figures are available, manufacturers' new orders were running only slightly behind their sales.)

• **Significant Gap**—Most forecasters feel that the lack of new orders data in retailing and wholesaling is a serious gap in the forecasting data. Because of this gap, forecasters have to rely on hard-to-interpret movements in bank loans to business as the chief clue to movements in trade inventories. A general improvement in the quality of inventory statistics ranks high on the "must" list of improvements sought by the Federal Statistics Users Conference, a lobby group supported by business, labor unions, and research organizations.

Forecasters sometimes try to get a line on production and inventories faster than the monthly Commerce Dept. data permit by clocking price data, available daily, for commodities that quickly reflect changes in demand in such important markets as copper, steel scrap, and cotton.

• **Capital Spending**—Data for forecasting capital spending, produced by the Securities & Exchange Commission-Dept. of Commerce and by the McGraw-Hill Dept. of Economics, are of relatively high quality. After econometric analysis of the record, Arthur B. Okun of the Cowles Foundation at Yale found both surveys excellent.

Neither survey, of course, is infallible. Statisticians agree that most of the error in the capital spending data is due to the same trouble that throws off the inventory and GNP figures—poor coverage of small business.

• **The Building Figures**—Construction is one of the toughest elements of business activity to measure accurately. The underlying data are based on contract awards for commercial building and on permits for residential building. But these pieces of paper are not direct evidence of building activity; they must somehow be converted into a measure of actual construction. The length of time between signing a contract or obtaining a permit and starting to build can vary greatly because of weather, labor market conditions, financing troubles, possible materials shortages. Spot checks show that quite a few buildings aren't even picked up in the permit or contract award data.

Turning the permit and contract award data into dollar figures is even harder: Building is often a lengthy process, subject to all sorts of interruptions. Statisticians haven't yet devised a wholly satisfactory method for estimating from the basic data the value of building put in place. The statisticians can get direct measures of the value of building put in place only for some large federal projects; they would like to extend coverage to other sectors.

III. Unemployment Index

The most controversial indicator is the unemployment figure put out by the Census Bureau each month. The controversy focuses not on whether the numbers themselves are free from big sampling errors but on the definition of unemployment used.

Pessimists claim the unemployment figures understate the real picture by not counting a lot of people who are only working part-time; optimists say the Census figure counts a lot of people as unemployed who aren't really out-of-work job-seekers.

• **Who's Counted**—In fact, the Census Bureau's unemployment total includes people who would have been

looking for work except that they were temporarily ill, people who would have been looking for a job if they thought that openings in their line of work were available in their communities, people laid off indefinitely—whether or not they are now looking for work.

The number probably also includes many people who aren't really seeking work at all—pregnant women, youngsters who aren't that eager to work during summer vacations, and so on.

• **Political Football**—Critics of the Census unemployment figure claim that it gives an exaggerated picture of the number of families in distress. Some argue that the unemployment figure should include only active work-seekers who are major breadwinners; they would exclude, as one critic put it, "baby sitters, floaters, and unemployables."

Gertrude Bancroft, the Census Bureau statistician who puts out the unemployment figure, would like to see her data become less of a political football. Her solution would be for Census to publish no single figure for total unemployment. Instead, she would release separate data for heads of families, new entrants to the labor force, people on short weeks, and so on. Everyone could then presumably add up the numbers to get whatever total he liked. This might solve the problem for sensitive Census statisticians—if for nobody else.

• **Needs Spending**—Most of the business indicators, however, aren't weak because of problems in definition or concept but because the underlying data aren't good enough.

Improving the underlying data, the statisticians' lobby says, wouldn't be expensive. At present, federal spending on statistics is running at about $40-million a year. This, statisticians argue, is a small cost, considering the importance of good statistics for business and government policy and planning.

Russia Has Statistical Troubles, Too

Figures are often inflated, but Soviet managers usually inflate consistently.

The statistical headaches of the U. S. (page 160) are minor compared to those of the Soviet Union.

This shows up in a study of Soviet statistics by University of California economist Gregory Grossman (picture). Grossman's book, Soviet Statistics of Physical Output of Industrial Commodities (Princeton, $4.50), was released last week. It is the first volume to be issued in the National Bureau of Economic Research's massive six-year study of Soviet economic growth.

At first sight, the Soviet Union would seem to be a statistician's paradise. Physical output data are reported continuously for virtually every productive enterprise. There is little need for sampling, and the flow of information is enormously detailed—Grossman estimates that more than 3-million people are involved in this statistical work.

• **Incentive to Lie**—The flaws in the Soviet data on the output of individual commodities stem from the reasons why the data are collected.

The vast majority of Soviet enterprises turn out goods—and statistics—to fill physical output quotas set by the Russian central planning agency. Decisions as to whether an enterprise has filled its quota are made on the basis of the output statistics originating in that enterprise. The rewards to Soviet industrial managers for exceeding their quotas are large; the penalties for falling short are severe. So the incentives for falsification are great.

According to Grossman, this causes managers to overstate their production. Overstatement doesn't usually take the form of sheer lying—inspectors from the People's Commissariat for Central Statistical Administration and other plant managers waiting to receive the goods see to that. Rather, says Grossman, Soviet industrial enterprises stress "sheer quantity at the expense of other dimensions of the product."

GREGORY GROSSMAN, California economist, studies Russia's commodity data.

• **Quality Factor**—The effect of this is "a systematic tendency for goods to be of poorer quality than the published statistics indicate" (instead of the opposite tendency as in the U.S.).

This problem is, of course, not only statistical. It's also one of the major causes of shoddiness in many Soviet products, particularly in consumer lines, where quality standards are least rigidly enforced by the Soviet authorities.

Grossman says that this tendency to overstate quality is inherent in Russian statistics, not merely an attempt to pull the wool over Westerners' eyes.

Indeed, Grossman pretty much clears the Soviet government of any charges of deliberately falsifying the published data, although there is some evidence that it suppresses data for some commodities in which production falls short of the target.

Nor does Grossman think that the prevalence of "quality debasement" badly distorts the growth rates of important individual commodities. He arrives at this conclusion by applying what he calls "the law of equal cheating." This law implies that there is no reason to suppose that Soviet managers or their accountants falsify more in one year than in another.

• **Over-All Index**—The relatively clean bill of health that Grossman gives the published Soviet statistics on individual commodities apparently doesn't carry over to the Soviet Index of Industrial Production as a whole.

Grossman doesn't deal with this index, but its accuracy has recently been challenged by a leading Russian economist, S. G. Strumilin (BW—Jun.17 '59,p32). Because of his eminence, Strumilin has been able to write more critically than other Russian economists since the death of Stalin. He says flatly that the index has grossly exaggerated the rate of industrial growth in Russia. Specifically, he charges that:

• Between 1928 and 1956, industrial output grew by less than 15 times rather than by almost 23 times, as the official statistics claim.

• In 1956, the net output of Soviet industry (measured in 1926-1927 prices) was 147.7-billion rubles, less than one-third of the 492.4-billion rubles that were claimed by the official index.

According to Strumilin, the Soviet production index goes wrong because it "double-counts" output. On automobile production, for instance, the index includes both the value of the steel that goes into the automobile and the value of the automobile itself. Strumilin's new index eliminates this double counting since—like the U.S. GNP figure—it includes only final products.

American experts on Soviet statistics have long been aware of this double counting—and their estimates of Soviet growth rates take it into account. END

DIGIFLEX instructor (left) flashes postal address on screen; electrical pulses cause the combination of keys that punch code numbers to rise on student's keyboard.

Machine Tutors Man for Jobs

U. S. Industries' Digiflex trains humans to operate the equipment that is taking their jobs.

U. S. I. Robodyne, a division of U. S. Industries, Inc., has come up with an automated machine that trains people to run the equipment that otherwise might automate them out of their jobs.

In its first commercial application, Robodyne's Digiflex will help the U. S. Post Office Dept. solve a major problem. New electronic letter sorters are threatening the present jobs of thousands of postal workers who sort mail by hand. When you figure that these manual sorters make up roughly a third of the Post Office's population, you can foresee a delicate situation.

Since it's Civil Service policy not to lay off employees, the Post Office has to retrain as many of the manual sorters as it can to handle the new equipment, reshuffle the rest into other jobs. Retraining is ordinarily a slow and costly process. But if Robodyne's claims bear out, Digiflex quickly will upgrade a large number of those who work at manual sorting into effective operators of the automated machinery.

• **Fast Training**—Electronic letter sorters are operated from keyboard consoles (picture) where a man reads the addresses on envelopes as they speed past, then punches corresponding code numbers into the machinery. The automatic sorter takes over from there, shoots the letters off at fantastic speeds to pigeonholes labeled with names of cities and states, or with zone numbers.

If traditional training methods were used, trainees would have to memorize code numbers and learn to associate them with addresses as well as acquire skill at a keyboard. This can take a long time. Also fewer employees would be able to succeed at such training, since it would call for a good memory and a certain amount of physical coordination.

• **Conditioned Reflex**—Digiflex does its job through essentially the same principle Pavlov used to train his dogs—the conditioned reflex. If something gives your fingers a sudden push upward, they will automatically respond by pushing downward. Robodyne applies this notion to training keyboards that, in effect, build the proper code responses right into a person's nervous system.

The setup works like this: The unit itself consists of up to 20 desk-like consoles for the students and an instructor's control console, linked to a strip film projector, screen, and a tape sound system. The students' consoles have the special keyboards on them—in this case, similar to the ones on automated letter sorters.

A sample address is flashed on the screen as the trainees sit at their keyboards. At the same time, electrical pulses cause the correct combination of keys that would punch the code number for that address to rise suddenly on all the keyboards. The trainees' finger reflexes automatically push those keys down. These pulses are generated by photoelectric cells in the projector, which get the right combi-

. . . the Digiflex-trained keyboard operator learns to respond automatically and correctly . . .

(STORY on page 168)

nations from other code numbers invisibly marked on the address film.

While all this is going on, the sound system—also triggered by the pulses—rattles off the code loud and clear. The student consoles are wired to a bank of lights on the instructor's control panel. If a trainee makes a mistake, the light corresponding to his keyboard flashes on, so the instructor always knows how the pupils are doing.

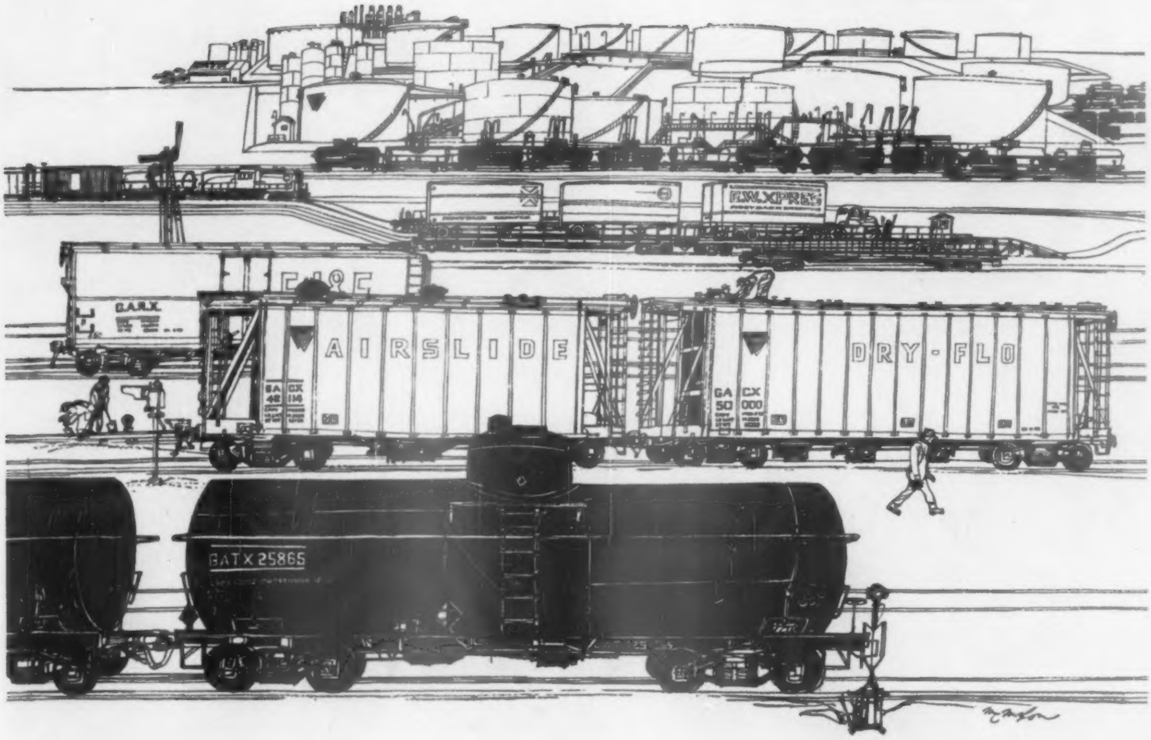
Robodyne claims that the Digiflex-trained keyboard operator will make very few errors. He has learned to respond automatically and correctly without having to "think" about the process, says the company.

• **Many Applications**—The Post Office has ordered 55 student and seven instructor stations at a total cost of $115,000, according to Robodyne. Edwin F. Shelley, president of the company and co-inventor of Digiflex, believes that a lot of other applications will be forthcoming soon. He says that the conditioned reflex methods could be used to train people in any kind of keyboard skills. This could include typing, stenotyping, and comptometer operation. In the field of automation, those clerks in banks and insurance companies whose jobs are rapidly being eliminated by computers and machines will be able to learn quickly to handle the card punches, paper-tape producing devices, and other keyboard controls that run them. Robodyne is investigating a number of these applications in its labs right now.

• **Record Time**—Extensive statistical information on how effective the new method is won't be available till the Post Office sees how the first several hundred trainees work out. But Shelley says experiments show that a student can learn to repeat a keyboard pattern without aid after four or five passes on the Digiflex. The method, he estimates, should cut training time at least in half, as well as widen the range of people who can learn keyboard skills.

• **Reaction**—Is there anything dehumanizing about this new training device? That is, is it likely that a person might regard being trained by conditioned reflexes as an insult to his intelligence or humanity? Shelly thinks not. If anything, he says, finding ways to teach more people to control automation equipment that's obsoleting their tasks is finding ways of keeping man the master and machine the servant. END

Imagination at work for Industry



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MAIDEN RUN for fully automated subway train was held on blocked-off track of New York Transit Authority system. Receiver coil under car picks up signals from rails.

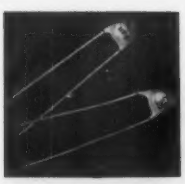
Robot Subway Train Passes New York Test

Sometime in the next eight months, the three-car subway shown above—said to be the world's first "fully automated" train—will be rumbling between Times Square and Grand Central Station in New York City. There have been systems before that were remote-controlled, but this is the first, says the New York Transit Authority, that has fully automatic, external controls.

On a blocked-off track in Brooklyn last week, the Transit Authority held its first public showing of the train after spending a year with the General Railway Signal Co. and Union Switch & Signal Co. in working out the signal equipment. A special brake system was designed for it by Westinghouse Air Brake Co.

• **How It Works**—The external controls—mostly relays and an automatic dispatcher that keeps the train whisking along on schedule—are housed in a

DECODER inside cab receives signals from coil, carries out operating instructions.



. . . the total tab is estimated at $175,000 . . .

(STORY on page 172)

large wayside signal cabinet. From the signal box, electronic impulses are transmitted to the train via the rails. Receiver coils on the train pick up these signals, and relay them to the motorman's cab where they are amplified and decoded or carried out.

The tracks are the real controllers of the train. They are broken down into six code-carrying circuits or insulated joints. Each joint lets through a different rate of electronic impulses, which controls starting, acceleration, speed, slowing down, or stopping of the train, for example. Toward the end of its 2,700-ft. trial run—the same distance the train will travel between Grand Central and Times Square—the shuttle crossed onto one insulated track circuit that braked the cars gently, cutting their speed down from 30 mph. to about 6 mph. On the next insulated joint, which produced still a different set of impulses, the brakes went on full, the train stopped, and the doors opened. At the end of the run, the tail lights were changed to head lights, the doors closed, the destination sign blinked on to read "Grand Central" instead of "Times Square," and the train pulled away on its simulated run to Grand Central.

• **Limited Application**—According to Charles L. Patterson, chairman of the Transit Authority and a passenger on the shuttle's maiden run, there are no plans right now for anything beyond a simple, one-train shuttle service between Times Square and Grand Central. To automate a whole subway system or even a part of it, he says, would take some complicated switching gear. "However, it could be done," he says. Labor, however, might have other feelings.

Before the automatic subway is put on the Grand Central-Times Square run, a telephone system will be hooked up so dispatchers at one or the other of the two stops can talk to passengers, in case there's an emergency that halts the train, say, some track problem that needs repair. Such safety hazards will be detected by several scanning devices that keep look-out for danger signals.

The Transit Authority can't say what the exact cost was, since much of the research and development work was done off-the-cuff by General Railway, Union Switch and Westinghouse in the hope they would pick up some future business. However, one "rough estimate" by the Transit Authority places the total tab at $175,000—about $25,000 for itself and $50,000 each for the three suppliers. **END**

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New Perspective on Steel Output

For months now, economists and businessmen have been wondering out loud why the steel industry was operating at little better than half of its capacity when the rest of the U. S. economy was still hitting high levels of production. Meanwhile, foreign experts have been casting uneasy eyes on the 50% operating rate and opining sagely that the U. S. couldn't be so prosperous after all if it couldn't keep its basic metals industry busy.

This preoccupation with the operating rate has obscured the fact that the steel industry today is both far larger and far more efficient than the industry of 10 years ago. Between 1950 and 1960 the industry increased its capacity by 50-million ingot tons, or just about 50%. It now has a total capacity of nearly 150-million tons, and a substantial part of that is intended to be a reserve for possible military demand and peak civilian loads.

The fact is that this year when everyone is crying the blues, the steel industry still will belt out something over 100-million tons of ingot (page 74).

Steel has its problems. One of them is competition from other materials. Another is the long, painful drawdown of inventories by steel users who have realized that they can get by with minimum stocks now that the industry can make prompt delivery on anything they want.

But before anyone, either in the U. S. or abroad, gets hypnotized by the operating rate, he should remember that this year's output of 100-million-plus tons compares with about 70-million tons for Soviet Russia and about the same amount for Britain, France, and West Germany combined.

Space to Let

"Should we have a satellite built, hire a rocket and launching pad, and expand our company's operations into outer space?"

Three years ago, this question would have been laughable. Today it has practical meaning. For the space high in the sky, now filling up with remarkably useful satellites, is opening up new opportunities for private industry.

American Telephone & Telegraph already has begun blueprinting a $170-million satellite network. Several other companies have tentative plans, too. And these are only the first, gingerly steps into the long-awaited Space Age.

Yet, with the government's $1.3-billion-a-year space program scheduled to move into high gear soon, the U. S. must begin to grapple, quickly and effectively, with myriad jurisdictional problems raised by satellites crowding the skies. International agreements on outer space must be reached with other countries, particularly the Russians.

Equally important, we face difficulties in our own backyard—mainly how to find a proper balance between the government's non-military work, managed by the National Aeronautics & Space Administration, and the interests of private industry. No one fully knows what rules the government will lay down. Both the new Administration and Congress next year are sure to debate whether to create a new space agency patterned after the Atomic Energy Commission.

Meanwhile, NASA has announced willingness to help companies put satellites into space at cost. Presented with NASA's open invitation to outer space, industry will have only itself to blame if it fails to evaluate quickly its role in this new area and hesitates to take action.

The TV "Debates"

This year, for the first time in history, U. S. voters are seeing the two Presidential candidates confront each other on television. As dramatic spectacles these so-called debates have been undoubted successes. But as a real contribution to the political process they leave much to be desired.

The basic trouble is that these are not debates in the true sense of the word. They are confrontations in the old quiz-show tradition, with each candidate making his points on a hit-and-run basis. There is no opportunity to develop a position in any depth, no provision for real rebuttal and surrebuttal.

This inherent weakness might have been overcome by skillful questioning from the newsmen who form the panel of inquisitors for each show. Instead the questions have contributed to the confusion and superficiality. Too many have been pointless and rambling. Almost all have left the impression that the questioner was more concerned with making the most of his moment in the camera's eye than with eliciting an informative answer.

The injection of the Quemoy-Matsu issue into the campaign is a sample of the sort of mischief that can result. The question about the defense of these islands never should have been asked in the first place. When it was asked, Kennedy should have refused to discuss it. And when Kennedy made the mistake of answering, Nixon should have stopped with rebuking him instead of going on to take a stand of his own.

If TV debates are to become an accepted part of future political campaigns, both the candidates and the networks will have to face up to the problem of making them useful rather than just amusing. That will mean abandoning the idea that television is solely an entertainment medium and making it a real instrument of information.

Will she let down the bars ...or give you the bird?

Our fine-feathered friend has barricaded herself against a record $11 billion in advertising—all of it fighting for a share of her mind and money.

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**And also ask Scott Paper, Cluett-Peabody, Chun King and Smith-Corona*

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